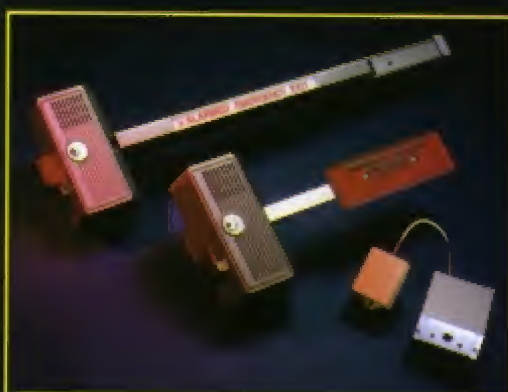


The National Locksmith®

July 1989

.....SHOW STOPPERS.....



.....ALOA.....

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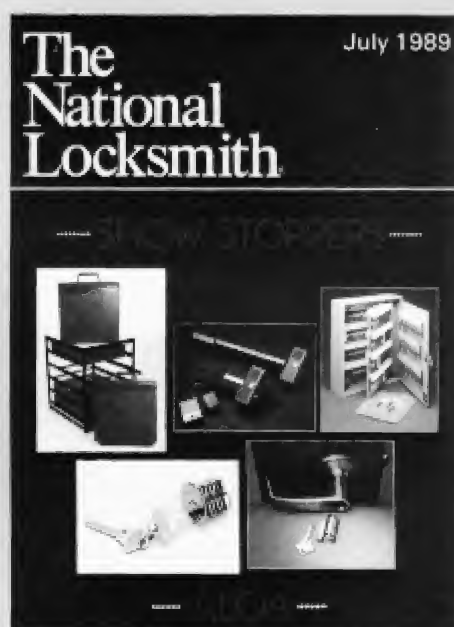
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On The Cover

The 1989 ALOA Convention in Atlanta will feature an exhibition of products on July 7, 8, and 9. Five companies exhibiting there are featured on this month's cover: (clockwise from top left) Auto Security Products; Alarm Lock Systems; HPC, Inc.; Lori Lock; and Schlage Lock Co.

*Click on the article
you wish to read*

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Commentary

Commentary Of The Year!

OK folks, I have to confess something right here and now. I'm not a genius! I hope that doesn't shatter any illusions, but I believe the truth must be told. You see, the gang here at the office has been bugging me, nagging me, and (finally) threatening me to get me to sit down and write a Commentary.

If you have been reading this Commentary for a while now, you realize that it usually isn't brilliant. I hope it is usually interesting enough to blow five minutes. But brilliant it ain't. Even so, I do like to come up with a good solid topic to impress you with. Something meaty like car opening and the police has always served me well.

But this month, (here's my confession) nothing important comes to mind. Oh, I suppose I could try and fake it with an editorial about the dangers of getting brass chips in your eye. Or I could nag you about your business practices. But my heart's just not in it this month. So instead of trying to invent an *important* topic this month, I'll tell you about a funny one instead.

I guess every company receives its share of wierd and funny phone calls. Our humorist writer Joe Locke sure seems to get enough of them. And last month, someone brought in an entire dash board off a 1967 Buick to Jack Roberts shop. But recently, we got a good one here at *The National Locksmith*.

As you know, *The National Locksmith* offers a Locksmith Bonding Program. In short, we Bond subscribers for a small fee. This Bond establishes the locksmith as a trustworthy member of the community. You can read over your bond certificate in more detail to learn what it covers. Over the years, I have spoken to many locksmiths who did not understand what their Bond covered. But Debbie in our office took the funniest call of all.

A locksmith, who will remain anonymous, called us with a deep southern accent from Florida. "Does my Bond cover a flamingo?" he asked. Debbie, of course, didn't understand. "Well, it happened like this," he continued. "I got called out to this fancy hotel to rekey some locks.

"Now, I generally take my dawg, Bear along with me...for company, you know. Bear, he's a Malamute, a big 'un, heck he goes over 150 pounds. Anyway, we pull up to the hotel, and before I know it Bear, he jumps out of the truck and he eats a pink flamingo, tore it up real bad. Does my bond cover \$2,500 for a new flamingo for the hotel?"

Debbie told me all this with a straight face. "\$2,500 bucks!" I exclaimed, "That's an awful lot for a flamingo! Why didn't you just tell him to go to a hardware store and by the hotel a new flamingo. I never heard of a plastic pink flamingo costing more than ten bucks! What was that thing made out of anyway, gold?" I shouted.

Debbie looked me right in the eye. "No, boss," she said. "It was made out of flamingo meat." I gasped, "You mean..." "That's right," she said, "it was a real flamingo, and Bear ate him all up!" So folks, before you write and call, no your Bond won't cover a \$2,500 flamingo. And remember, keep your *helpers* on a leash!

Anyone interested in fighting police car openings in their town will want to obtain the following. A hardworking coalition of seven locksmiths has made up a packet of about 75 pages to document why police shouldn't open cars. The packet contains photocopies of all articles and letters written about this around the country. The price is \$18 to cover the costs. Call Sue Fields at (602) 832-4141. Or write a T & F Locksmith, P.O. Box 6655, Mesa, AZ 85216.



Marc Goldberg
Editor/Publisher

July 5

Letters

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and lengths. Please address your comments, praise, or criticism to: Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. All letters to the editor must be signed.

Unauthorized Tool Sales Issue Discussed

Regarding your March Commentary on the new federal law for restrictive sale of locksmith tools, I had a couple of comments.

Although the new law probably should have "prohibited the sale to anyone other than a bonafide locksmith and restrictive sales to bonafide auto repossessioners," the law may not be all that bad after all if you examine it closely.

According to your article, the law refers to "a means of delivery" regarding the violation of a shipper. This obviously applies to the mail order houses but can also apply to a retailer receiving a delivery of over the counter lock opening products from his corporate warehouse or vendor. In other words, the product had to have been transported to begin with from the manufacturer at some point.

One example, Brookstone, a mall retailer of specialty items, carries a version of the Slim Jim. Although the store itself may not be in trouble, their "source point" would be, perhaps even their corporate headquarters for re-shipping a product made elsewhere.

The only problem would be identifying who their supplier is and how we could report such an incident.

Jerry Robinson
Illinois

'Corby Girl' Regarded As Unnecessary

I sat down to read my April 1989 issue of *The National Locksmith*, wondering what new and glorious things I would learn from this issue. First I enjoyed a good commentary from Marc, then on to the tragic story of Marvin Webster's death, next some helpful hints, and what's this???? "Newsmakers, A "Corby Girl?" Does she install access control systems? I doubt it. Is she a locksmith? I doubt it. Does her picture belong in this publication? I doubt it. Come on guys. Give women in locksmithing a break!

Karen Saxton
Pennsylvania

Reader Objects To Calendar Promotion

I am appalled that you would permit the press release for Corby Industries on page 17 of the April 1989 issue to be run in *The National Locksmith* magazine.

What has an almost naked woman to do with professional locksmithing? In one fell stroke, the advertisement takes the locksmithing trade out of adult professional hands and puts it back into the dark ages of dirty fly-specked shops. This is the image you want the public to look up to?

The fact that Corby Industries has the exceptional bad taste to produce such a calendar surely does not mean that you have to advertise it. This type of advertisement is an insult to the trade as a whole and especially to the women in it.

J. Cohen
California

Editor's Note: These days even men get featured on calendars... "beefcake" is in. Since the Chippendale Dancers were formed, it makes this type of thing seem less sexist. However, I am sure that neither Corby nor this magazine wished to offend you.

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Locksmith Objects To Industry Professionalism

When a person tells me, that they are of a profession or a professional locksmith, I will take a more kind and gentle attitude toward them: maybe they are.

In this wonderful world of the craft of locksmithing, I have seen some things that make me bow my head in reverence and solemn wonder, to all those professionals who have demonstrated such wonderful ability and skill beyond all ordinary concepts.

There is, "The Royal Order Of the Fourteen Inch File," "The Knights of The Big Long Screwdriver" and "The Butcher Brigade," who have been most outstanding in their performance in the craft of locksmithing.

There is one sure way to tell a professional locksmith; look at the tools he/she uses. If they use a big long file as a hand-milling tool to modify the plug of a cylinder, they are indeed a "professional."

As soon as a person knows, the difference between a phillips and a straight blade screwdriver, they become a member of this locksmith

profession. Then next they can master the use of the slip-joint pliers and can be a master. These are the basic tools of a master locksmith. The next job, is to learn the use of a hacksaw. This is used to saw the knob off a key-in-knob lockset—to service a lockout.

It is a worldwide marvel, how the minds of locksmiths have worked out all the solutions to the problems in the locksmith industry. Education and aptitude brings out the best—in a few.

May the locksmith industry keep up the good work—in the next century.

McCaffery Smyth
Ohio

'DND' Is Easy Policy To Live By

As in the past, here is yet another letter on the "Do Not Duplicate" issue. I am the locksmith for an apartment supply company in Michigan. Our policy has always been that if a key is stamped DND and we do not know that person, then the key does not get copied without approval from the management company of that complex or the person's superior.

We figure that the key has been stamped for a reason, whatever it may be. If we do make a copy of the key it also gets stamped DND. In most cases these keys are master keys to apartment complexes and control must be maintained. After all, Medeco, Best and Falcon keys come from the factory stamped "DND." I feel this policy is easy to live with and live by.

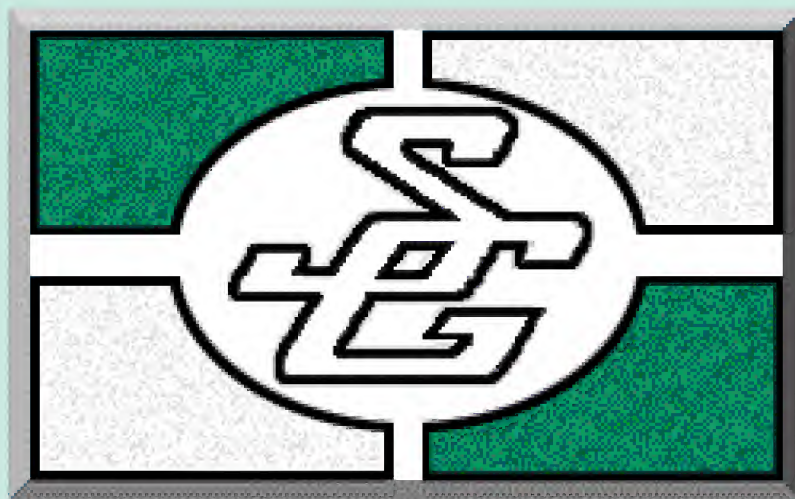
Robert Moore
Michigan

'Eye Opening' April Commentary Praised

I read, in the April 1989 issue of *The National Locksmith*, the Commentary "I am a Locksmith." This article was excellent! It is the most thorough description of the locksmith profession that I have ever read.

We are going to do some advertising in our local newspaper for our company and we are very interested in using this Commentary as part of that. I was wondering what our chances were of getting *The National Locksmith's* permission to use their article as part of our advertisement?

Continued on page 10



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I think that this type of article would let the public know exactly what we locksmiths are out there for. So many times we encounter the exact situations, as described in the Commentary, in our daily contact with the public.

There are so many people out there that still are not aware of what exactly the local locksmith is all about. This would, hopefully, open their eye's to the fact that the police are trained to enforce the law, and cheap hardware is for your child's playhouse, but the locksmiths are for their protection and trained to provide the community with the best in security!

Rhonda Wilson
Georgia

Editor's Note: You may reprint with the credit line, "Reprinted from The National Locksmith, 4/89, written by Marc Goldberg."

Reader Applauds O'Shall's Masterkeying Article

After reading Don O'Shall's article on computers and masterkeying in the June issue of *The National Locksmith*, I feel compelled to add my comments.

I want to say *amen* to his article since I have attended numerous masterkeying classes and none of them have gone in depth as to key "labeling" much less brought out that the assignment of those "labels" should only be used in conjunction with possible combinations *after* the fact of masterkey progression generation, and even then when truly aware of the customer's needs.

I maintain that masterkeying expertise is truly required before *and* after the creation of the progression lists.

David House
Texas

Locksmith Frees Officer From Jail Cell

After serving 33 years as a police officer, I can understand why the police and fire departments unlock cars. In a lot of cases they are not emergency calls either. I can also understand why a lot of locksmiths get upset as I am the owner of a locksmith business in the Lewisville, Texas area for a little over three years. The reason most police do this is because they look upon it as a service to the public since their jobs are in the service area.

So I would like to share with you something that happened to my son and myself on a call one early morning around 5:30. Maybe this will give those that are upset with the police something to laugh about.

The city of Lewisville is in the process of building a new city hall, along with enlarging the police department's area including the city jail. It seems as though one of the Radio Patrol sergeants was walking around the construction area looking at all the new room they were getting when he walked into a jail cell and pulled the door closed. Guess what....yep it locked. Well it goes without saying there was no jail key. The contractor still had the keys and he did not report to work until 8 a.m.

After an hour of trying all but shooting the lock off the door it was decided to call Fred's Pick-A-Lock. Now I can imagine what some of you might have told the dispatcher, or better yet charged the police to open the lock. But being the kind of guys we are we went and had a big laugh out of it. By the way, I'm going to let you guess what we did.

Fred Chance, Sr.
Texas



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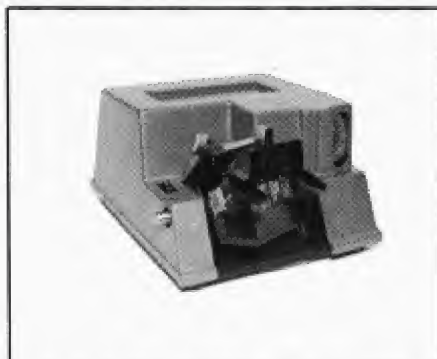
First Prize



HPC Bravo

The two speed motor cuts brass or steel. The 4-way vise jaws securely hold almost any key. A micrometer style depth adjustment and precise shoulder gauging cut the most accurate keys possible.

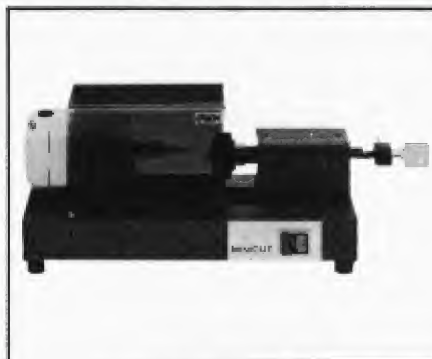
Second Prize



ESP 990 Manual

This machine features double-sided reversible jaws that eliminate the need for adaptors. The carriage is fixed to the sliding carriage shaft resulting in reduced play and less shaft wear.

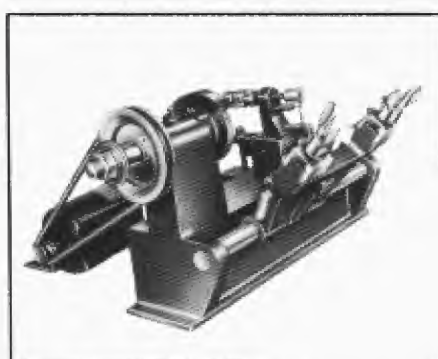
Third Prize



Ilco KD94

Cuts the 1137 tubular key, brass or steel accurately and quickly. Features include large chuck to hold standard size key heads, easily adjustable.

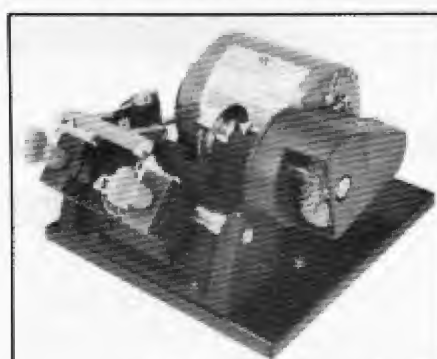
Fourth Prize



Belsaw 200

Duplicate, cut by code, cut flat steel keys. Complete machine with motor, three cutters, guides, and instructions. Built-in micrometer.

Fifth Prize



HPC 9160

Ideal for large key duplication. Equipped with fine double-sided jaws ensuring accurate cutting with little or no wasted blanks.

Sixth Prize

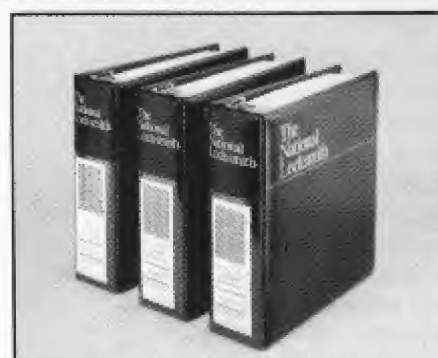


\$150 Cash

Everyone can use a few extra dollars! This prize will brighten your day...and fatten your wallet.

Code Books From The National Locksmith

Seventh Prize



General Code Book Set (NGCB)

These three books contain 450,000 codes covering domestic lock and automobile codes.

Eighth Prize



Padlock Code Book Set (NPCB)

These three volumes offer 462,000 codes covering Dudley, American (Junkunc), Master and Yale.

Ninth Prize



Foreign Car Code Book Set (NFCB)

This two volume set holds 432,000 codes for the complete variety of foreign cars, from Alpha Romeo to Yugo.

Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

by Robert Sieveking

Technitips this month is a little long. There are some real gems here. There are a few solutions to interesting problems, and some interesting ideas on modifications to a couple of tools. They all "got the job done."

If you don't see your Technitip here, it's because you have not sent one or it's still in the mail. Right? Somebody is going to be running that new Bravo machine with two speed motor and four way jaws come January. Just like that micrometer adjustment, calibrated in thousandths of an inch, the difference between a winner and the multitude is very small. A piece of paper measures about .003", which could be the difference between you and the winner this year. Or should I have said, "difference between you and the rest of the locksmiths that sent in Technitips in 1989." Think of how nice that new key

machine is going to look on your bench, then go that extra .003" (three thousandths of an inch). The difference between winners and those that don't win is very little.

See you at ALOA. Stop by The National Locksmith booth. See what the winners look like.

July's Best Tip

Here is a tip on removing the ignition lock from the late model Renault autos which use the RN30 (Ileo) or X147 (Taylor) key. If you are having trouble picking the lock to the removal position (between accessory and on) shim the lock from the front. The face of the plug is slightly larger than the plug but the lock can be shimmed from the face. Once the lock is picked to the position between accessory and on, the lock retainer pin can be depressed and the lock assembly slid out of the welded metal sleeve on the column.

The new lock/electrical switch used on the Medallion, etc., uses a

trap lever in the keyway. If the lock is picked, the lever may slide to the rear of the plug. This will prevent a key from entering and operating the lock cylinder. To solve this situation, use a hook pick or hook type key extractor to return the trap lever to the front of the lock.

The RN30 key has a square hole in the blade to accommodate the trap lever. As the key is removed from the plug, the trap lever releases the steering wheel lock bolt, which locks the steering column.

Larry Shafer
New Jersey

My Technitip has to do with finding a different use for a car opening tool. Having purchased a set of car opening tools, I felt that I could open almost anything with four wheels. That was until I had the occasion to open a Chevrolet mini-van. After trying almost all the tools in the set, I was unable to get more than a slight move-

How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to *The National Locksmith*. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, *The National Locksmith*, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will **not be eligible!** So get busy and send in your tips today! You may win cash, merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1989? Enter today! It's a lot easier than you think!

Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker, decal and patch. Plus you are now eligible for the really big prizes!

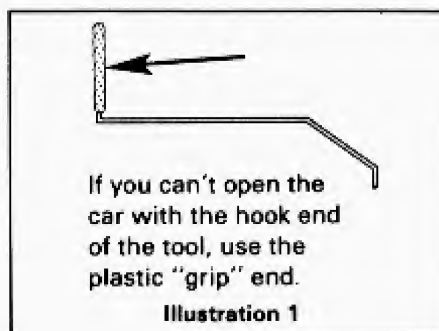
Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal, patch and a Locksmith Cap. Plus, you may win one of the great prizes pictured above.

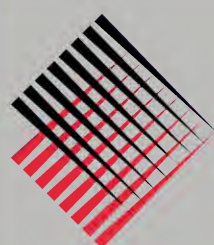
ment of the lock button.

After some careful consideration, it occurred to me that the handle end of the tool, with the plastic covering, might do the trick. The tool was inserted into the door and it worked perfectly. The plastic covering of the tool had enough "grip" to actuate the linkage and open the door. (See illustration 1.)

I have tried this idea on some other autos with equal success. I hope this tip helps someone else that is having trouble opening some of the newer autos.



Paul Gannon
Missouri



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This is a short Technitip for renewing the numbers on a badly tarnished or worn safe dial. Many of the dials tarnish, and after a while the numbers become quite hard to read in the dark corner of an office or under a desk.

A quick and effective method of brightening up these old dials is to remove the dial from the lock and chuck the spindle up in a drill motor. To prevent damage to the threads, wrap the spindle with paper, then tighten it in the drill chuck. Turn the drill motor on and polish the dial with extra fine emery cloth or better still, 0000 steel wool (4-0). This will give you immaculate results in just a few seconds.

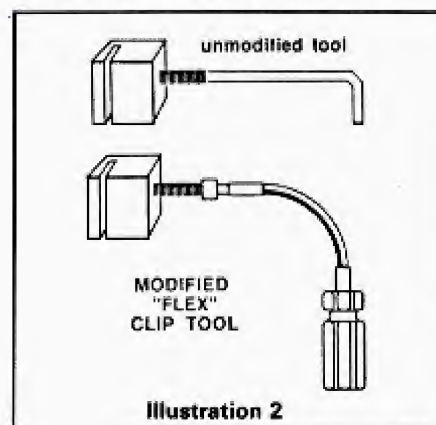
The engraved numbers will be tarnished in the grooves and stand out nicely. If the numbers do not stand out well enough to suite you, dust the numbered portion of the dial with a little black aerosol lacquer. Don't try to paint the dial, just very lightly dust the numbers. The lacquer will dry in a few minutes and you can use the drill and a little steel wool to remove the lacquer around the numbers of the dial. This leaves plain black numbers on a beautiful polished dial.

This tip will improve your customer's image of what you've done for him, and will guarantee that you will be called back, next time someone needs a locksmith.

William O'Dwyer
Connecticut

Recently I purchased a new automotive door clip removal tool. It's a great tool, and almost indispensable for removing the lock retaining clips inside the door. I found the tool difficult to operate inside the door, especially on foreign autos.

After studying the problem, I modified the clip tool by replacing the rigid bar with a flexible allen wrench. I silver



soldered a socket head hex cap screw to the end of the flexible allen or hex wrench and screwed the new handle into the clip tool in place of the rigid bar that comes with the tool. If you need to use the tool with a stiff handle, simply exchange the handles back. (See illustration 2.)

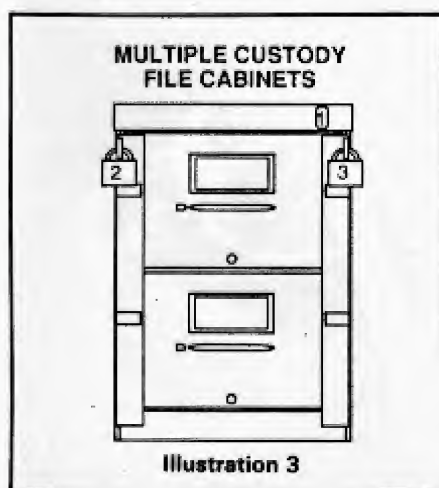
This modification allows the tool's pusher screw to push the clip off the lock by turning the screwdriver handle in a more convenient position outside the door.

Wesley Sherrod
Oklahoma

Over the past few years I have been called upon by a local bank to solve some slightly unusual, light security problems. These security needs involve the multiple custody of cabinets that contained documents and promotional give-away items. The bank required a way of securing some cabinets, that would require the consent or presence of two or three persons to access the materials.

To solve this problem, I installed a Multi-Lock lock bar and padlock on the cabinet. The O.E.M. push lock key was issued to the supervisor and the padlock key was issued to the employee. The problem of dual custody had been solved.

So pleased was the bank with this solution, that a triple custody cabinet was requested. This was solved by installing two locking bars in conjunction with the O.E.M. push lock as shown in illustration three. With both bars, the cabinet requires the presence or consent of three "key holders" to access the contents of the cabinet.



I hope this tip is helpful to another locksmith that requires multiple custody of file cabinets or desk drawers.

Ken Dalla Vicenza
Canada

The following Technitip is one I developed to provide a restricted keying type master system for standard deadbolts on motel doors. The modification is to provide security *against* the use of a system master. The system is set up with only one master bitting, but the key blanks are modified to be either "restricted master" or "unrestricted

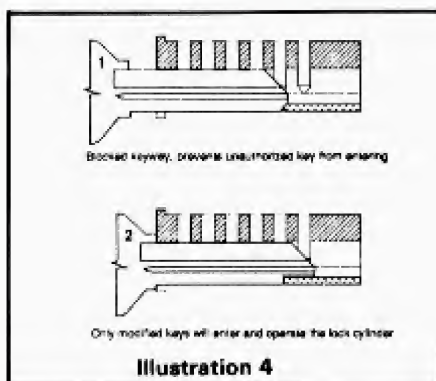
master." This method will work with most pin tumbler cylinders.

Remove the plug and bottom pins from the lock. Modify a working key by filing the bottom back about .250", to a depth of about .050" from the back of the blade. The tip of the key should look like key "2" in illustration four. Obtain some solid core solder that is between .050" and .075" in diameter, and cut it into pieces that will be used to block the bottom of the keyway. You will need a flat tipped chisel or "calking iron" to flatten and smooth the solder



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level with the bottom of the keyway.

Insert the key into the plug, and place the plug upside down in a plug holder of the proper size. Lay a piece of solder in the bottom of the keyway and tamp it down to conform to the inside of the keyway as shown in the illustration. Dress the solder with a small flat file to insure that the plug works freely in the lock cylinder. The modified key can be used as a gauge for the position and length of the obstruction in the plug. Remove the set-up key and pin the lock as you would any other lock in the system.

In a motel system, most doors will have a latch lock, of the store room type, to keep the room locked against

other guests. A deadbolt type lock is also provided, for the privacy of the guest against all master keys, except the "inn-keepers" key. The deadbolt prevents maintenance personnel and maids from opening an occupied room.

The master key would operate the deadbolt and the lockset, but the deadbolt is modified to prevent an unmodified key from entering the keyway far enough to operate the lock. The maids and maintenance personnel have master keys that will operate the locksets but are restricted from operating the deadbolt locks.

This feature also guarantees that only the inn-keeper has access to certain storage closets and locked areas of the motel.

Don Simpson
Missouri

Editor's Note: For limiting the number of locks that a master key will operate within a system, this is a good idea but easily bypassed. Why not key the deadbolts and security closets alike and keep the inn-keepers key completely separate from the master altogether? The inn-keeper's key is the only key that opens the deadbolts anyway.

In the past several years I have had numerous customers with Chrysler autos that have put their ignition keys or trunk keys into the ignition lock upside-down and found themselves with a very real problem. The key was stuck solid. No amount of wiggling or pulling would free the key. If the customer called before breaking the tip of the key off in the lock, it was my lucky day.

A worn ignition or a trunk key, can sometimes be forced into the ignition lock upside-down. In this position the cuts of the key will be on the bottom. In this position, they will hang up on the key alarm switch actuator. The only way to free the key is to push the buzzer actuator down.

If the key is not broken off, take hold of the key and push a pick, either a hook pick or a small rake pick, under the blade of the key as you pull gently on the key. The pick should be pushing the key alarm actuator down and away from the cuts of the key as you pull the key from the lock. This is the easy way.

If the key has been broken off in the lock, the job is a little more involved. The key can be hooked with a spiral

Continued on page 169



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Newsmakers

New Products and Industry News

National Lock's New Package Design

The new entry handle package from National Lock Corp., combines maximum product visibility with boldly-designed graphics.

The new packaging puts every component of the entry handle system, including the inside doorknob, in complete view of the consumer. This enhances retail merchandising and allows the consumer to see exactly what he or she is buying. Constructed of durable corrugated cardboard, the new package also features sharply cut-away sides, allowing complete product visibility.



Customline Offers Electronic Gate Operators

Customline, Inc. a leader in security gate operator installations, bring over 70 years of experience to the locksmith field. Every piece of equipment manufactured by Customline is tested before leaving the factory, and is guaranteed against defective materials and workmanship. Their product line ranges from the V-series heavy duty electric lock for swinging or sliding gates, to their ground level wheels fabricated from solid steel.



Customline gate operators are suitable for light industrial or residential applications and help cut down on high insurance rates, parking lot thefts, or wasted hours opening and closing gates.

Selling Services "Traveling Lock Show"

Selling Services, Inc., a marketing and trade show company is entering the lock and door hardware trade. Selling Services, Inc. organizes representatives from manufacturing and distribution to travel to key cities. With this unique approach locksmiths can receive personalized instructions on technical questions and receive hands-on demonstrations on the newest and most advanced products. The "Traveling Lock Show" offers free admission and may be held in a town near you.

Selling Services, Inc. provides national advertising, direct mail and a telemarketing staff to invite locksmiths to enjoy their complimentary hors d'oeuvres and refreshments while attending the Traveling lock Show. The Traveling lock show is a free trade show held in various locations throughout the country.



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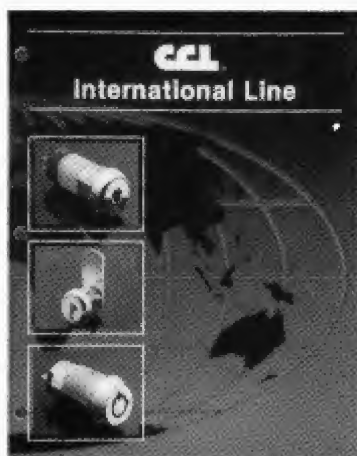
**The market leader
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CCL Security's New International Line Catalog

CCL Security Products, introduces its new international line of quality locking devices in their recently published International Line catalog.

This new product line includes switch locks of various types, sizes and amperages; pop-out handles and cylinders; cam locks in a variety of sizes with competitive keyways; tubular keyways; and brass body padlocks.

With the introduction of this new line CCL Security Products expands its market segment.



Computerized Security's Gibraltar 2000 System

The Gibraltar 2000 Electronic Keying System from Computerized Security Systems is the perfect security system for large or small situations. The system is specifically designed to tackle the key control of complex multi-access buildings, such as offices, universities, hospitals and airports, to the smallest apartment complexes or clinics.



You can rekey doors in minutes, or change entire lock systems almost instantly. At only four seconds to encode a new key, and another four seconds to program a lock/access control unit, the Gibraltar 2000 is a valuable time and money saver.

The system consists of five major components: electronic lock trim, access control unit, key, emergency programmer data retrieval unit, and the key encoder.

Circle 340 on Rapid Reply

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Aable Locksmiths' Inter-Lockit 2

Frank Markisello of Aable Locksmiths, designer of the Inter-Lockit cylinder protector, has now designed a cylinder for hurklite glass doors.

It has a tapped hole on its end, which if needed, can be used in place of the cylinder set screw which in most cases gets stripped or damaged. Once the plate is on, you can use this tapped hole to install a set screw, then tighten the cylinder in place. This new plate is called Inter-Lockit 2.



Kenco Supply Announces Catalog

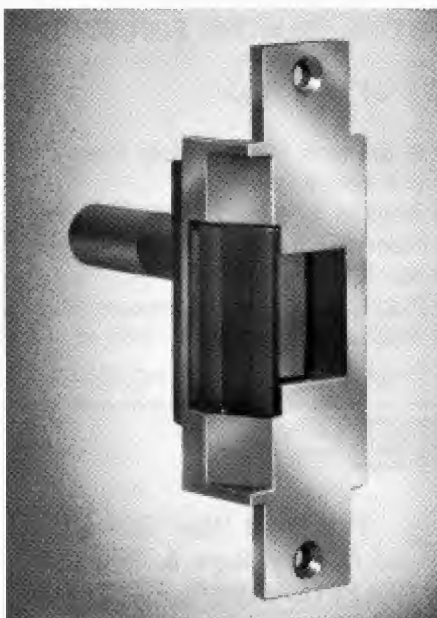
Kenco Supply Co. announces the arrival of their newest catalog. The free catalog features 180 pages of locksmith tools, parts and hardware from over 100 manufacturers.

The new Kenco catalog is one of the most complete in the industry.



Von Duprin To Introduce Electric Strike Line

A new line of electric strikes will be introduced by Von Duprin, Inc. to supercede its existing 3000 Series strikes. Designated the Von Duprin 6000 Series Electric Strike line, the new products also will be a direct replacement in both fit and function for the Folger-Adam 300 and 700 Series electric strikes.



A spokesman for the manufacturer stated that the first phase of production, scheduled to begin in the second quarter of 1989, will concentrate on replacements for the company's 3000 Series strikes. All models will be of stainless steel construction, with stainless steel faceplates, but three strike box designs will be used.

ALOA Appoints Executive Director

ALOA recently disclosed the appointment of Robert J. Kingsbury as its new executive director. However, due to Mr. Kingsbury's inability to fulfill his pledge of service to ALOA, he notified the ALOA Board, and has accepted a position with another association.

The ALOA Personnel Committee made a remarkable recovery from the apparent setback. The committee had a difficult time selecting between two candidates for the position. Both candidates excelled over other applicants in essentially every category. The committee re-interviewed the other candidate, based upon additional information that had been procured and made recommendation to the



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ALOA Board.

ALOA is gratified to announce that William R. Mathisen was employed as its Executive Director and assumed the position on May 30, 1989.

Mathisen is working toward an M.B.A. in Marketing, and has degrees in Finance & Accounting, Industrial Management, and Architecture.

He had been employed with the National Kitchen and Bath Association since 1986. He has most recently served as Director of Membership/Marketing for NKBA.

Fort Lock Company's Locksmith Catalog

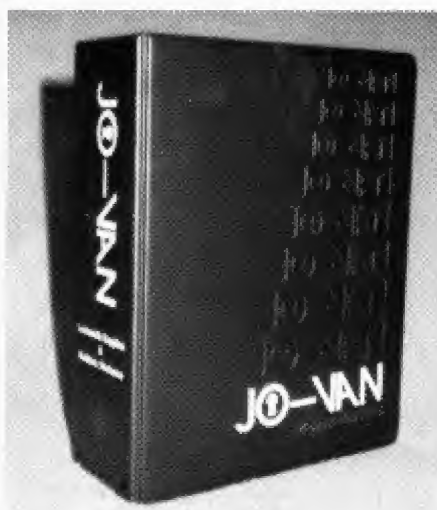
Fort Lock Corporation announces their new full line locksmith catalog, number 16. This 36 page catalog features Fort's Multi-Function line, and introduces the Multi-Function SG9000 sliding glass showcase lock.

The MFW SG9000 has a double-bitted six tumbler locking cylinder, and is bagged with two locking bars.

Catalog Number 16 also outlines Fort's complete line of cam, switch, and special purpose locks.

Jo-Van Distributors' Double Hitter

As a follow-up to their recent move to increased facilities, Jo-Van proudly announces the release of their 1989 customer catalog. This catalog has been designed to serve the professional locksmith.

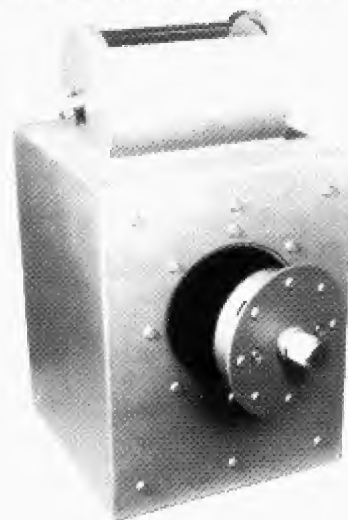


Two years in the production, information has been gathered from approximately 125 manufacturers and represents over 7000 items which is constantly expanding.

Wico Distribution Corp. Introduces Roto-Top Safes

Wico Distribution Corporation, Niles, Illinois is introducing it's comprehensive line of Roto-Top styled safes. The Roto-Hopper design permits deposits in the vault without revealing the contents of the safe. Drop money bags into the hopper, turn the handle and the deposit drops into the vault.

Safes with built-in locks feature Wico's exclusive locking mechanism to resist forcing or punching out of locks.



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Installing Key 'N Keyless

"This lock is the most exciting innovation I have ever seen in keyless entry lock systems. It is *fun* and easy to use. The lock will sell itself."



by Dale Libby

Before getting into the overview of the Key 'N Keyless electronic lock (see photograph 1), let me just state that I think this lock and deadbolt is the most exciting innovation I have ever seen in keyless entry lock systems. It is *fun* and easy to use. The lock will sell itself, once the customer sees how easy it is to use.

The most important part of the total



1. Inside and outside views of the Schlage Key 'N Keyless electronic locks.

lock package, other than the lock and deadbolt itself is the User's Guide or manual. This book has *all* the secrets of installation, use and service notes for the installer and the owner of the lock. It covers subjects from lost electronic master codes, to proper handling of the lock. Once you are familiar with this lock, the owner's guide/manual is not necessary to the experienced locksmith.

I am not going to give you a step-by-step installation, nor will I go through the manual step-by-step, but I will touch on the high points and some facts that will hopefully answer the most often asked questions that you the locksmith might have, and the questions that the customer will surely



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have.

Locking and unlocking knob and deadbolt. This unit can be purchased with just the doorknob unit, or the knob and the single cylinder deadbolt. Three styles and finishes are available. The unit I tested was antique brass with a real classy look. Polished brass and chrome are also available. The purpose of this lock is to have a good looking keyless entry unit.

Key entry uses the standard Schlage key type doorknob and deadbolt system that we are all familiar with. The doorknob has a panic exit feature. The deadbolt must be turned manually from the inside.

To enter the codes for keyless entry or exit, the doorknob can be turned right or left. Turning the knob left will advance the numbers in the LED display from 0-9, while turning the knob the other way will produce a descending order on numbers from 0-1. When the knob is locked, the knob can still turn about 15 degrees in either direction. This is how you enter the numbers.

Once the correct code has been entered with either a 2, 3, or 4 number code, the letter "U" will appear in the LED window. This signifies that the doorknob (and deadbolt, if one is present) will open. (See photograph 2.)



2. "U" in LED window indicates that doorknob and deadbolt are ready for opening.

On doors with a deadbolt, it is important to open the deadbolt first. After the "U" appears in the window, just turn the bezel ring around the outside of the deadbolt; an inner lever will engage this ring, and open the deadbolt. (See photograph 3.) Two beeps are heard from the deadbolt unit, to signify that the deadbolt is armed and ready to open. After the deadbolt bolt is withdrawn, then the door can be opened.

To exit the premises without a key is easy to do. There is a button on the top



3. Retracting the deadbolt by turning the outside bezel.

of the deadbolt that, when pushed, will emit two beeps. This means that the deadbolt is engaged and the outer ring

will extend the bolt when turned, after the door is shut, of course. Ample time is given to do this.

Once you play with the unit, it will be easy to understand how this opening technique can be taught to anyone, including children, in a few minutes.

Codes. This unit comes with the ability to have two codes of different numbers in it. One is called the master code, and the other is the temporary code. The temporary code is used if you want someone to have temporary access to the protected house or area for a limited amount of time. With the flick of a switch, the temporary code is

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rendered inoperative, while the master code always works.

The manual goes into detail about how to set new master and temporary codes, and what to do if either the master code or the temporary code is lost. It also goes into the proper way to enter codes. When a temporary code is being used, the opening window is longer, to accommodate people who are not familiar with working the lock. As far as I can see, they have thought of everything in the manual.

Hardware installation. Both the deadbolt and the doorknob have to have a $2\frac{1}{8}$ " hole to accommodate the lock and the electronics. Both holes *must* have the same backset, either $2\frac{3}{8}$ " or $2\frac{3}{4}$ ". This is due to the fact that the doorknob sends an infra-red beam to activate the deadbolt. The deadbolt must be directly above the doorknob, from a minimum of four inches apart to a maximum of 18 inches between hole centers.

The actual installation of the deadbolt and the doorknob units is pretty much the same, with the additional fact that for the knoblock, there is a wide flat wire to install from the front to the back of the lock. (See photograph 4.) This unit has all the brains in it, so the wire is wide, and must be installed



4. Electronic cable connection between the doorknob to the back of the doorknob unit and battery pack.

correctly. The deadbolt has only two wires in it, and these wires must be correctly routed and plugged into the inner thumbturn unit.

The deadbolt unit is the hardest to hand. It must be both mechanically correctly handed, and electronically handed as well. I could not get the deadbolt to work correctly when I

installed it on my mount. I did not carefully read the instructions about disconnecting the battery to properly hand the unit electrically. The information was there, but I did not see it at first. Once a careful reading of the manual was accomplished, the problem was solved.

Alarm function. The doorknob unit comes with an alarm feature that lets the user decide if he or she wants the unit to beep for 15 seconds whenever the doorknob is turned, in the locked position. It can be set for instant or delay function. In the instant function if anyone, even if they know the correct code, turns the knob, a piercing beep is heard for 15 seconds.

With this feature, when you hear the beep, you will know someone has tried, or is trying to open their doorknob. The alarm can be turned off or set in a delay sequence. All this is covered in the manual in length.

Battery maintenance. Schlage suggests that the batteries be replaced in both units at least once a year. Many things will determine if the batteries should be replaced earlier, like frequency of usage, weather conditions, temperature, etc.

Continued on page 170



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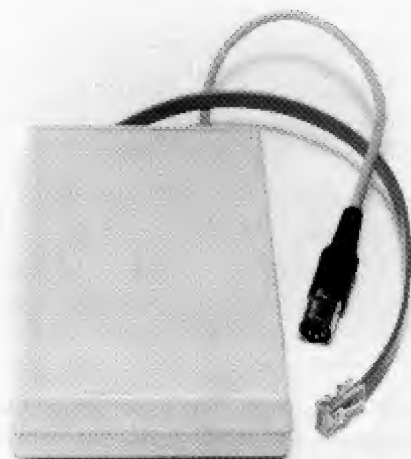
Jet's Security System Plus

"A percentage of the Central Station monitoring fee will automatically be sent to the locksmith who sells and/or installs the system...year after year."

Until recently, Jet Hardware has been best known for their extensive line of key blanks. However, the Brooklyn, New York-based company has just introduced a new product to the locksmith market. The Security System Plus by Jet is a state-of-the-art wireless security system designed and manufactured in the U.S.A. for residential and commercial installations.

One important feature of Jet's Security System Plus is the fact that it will be available to the public only through the locksmith. In fact, all advertising, brochures, displays, etc., indicate that the product is "Available only through your Professional Locksmith."

Included among the options is an



Auto dialer to remote monitoring service station.

auto dialer with Central Station Monitoring. Security System Plus can differentiate the signals to the monitoring facility so that they can tell the difference between burglary, fire, panic or other emergencies. The auto dialer connects the system to the remote service simply by plugging into an F.C.C. approved telephone jack.

When the system is coupled to the auto dialer, the alarm system places the locksmith in the same category as the established alarm companies because of the Central Station alarm telephone service. With the dialer incorporated into the system, the user must pay a fee for the Central Station monitoring. A percentage of this fee

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Jet Security Systems Plus components.

will automatically be sent to the locksmith who sells and/or installs the system. Each time a payment is made by the consumer for the monitoring, a check will be sent to the locksmith—

year after year. Thus the locksmith continues to profit from the alarm system long after the initial sale.

Only locksmiths will be able to purchase the system through their distrib-

utors. The product line will never be sold through any source other than the locksmith. The units and options will be packaged in boxes. There will be no blister packing. Attractive window or

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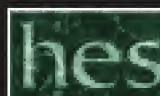


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wall displays and counter displays will be available to the locksmith for promotional purposes along with printed catalog information.

The alarm system is comprised of the following components, most of which are easily installed with only a screwdriver or double-sided adhesive tape. The master control unit is self-contained, consisting of the receiver, an audible horn, built-in battery backup and dialer capability and a low voltage transformer. Plus it offers the feature of an audible alert for internal control without activating the alarm.



Indoor/outdoor alarm horn.

area. All of the components will be packaged separately so the locksmith will sell the consumer exactly what is needed to complete the job.

This system is designed to allow the locksmith to compete with those who specialize in the electronic security field. Unlike most alarm installers, the locksmith can provide the alarm, but also an array of services to upgrade the consumer's physical security. It is advised that the locksmith, prior to installing the system, check with the local state, county and city to insure



Jet's master control unit.

The alarm also features an optional internal control alert which when activated, will sound a short beep if any doors or windows are opened, or if there is movement in areas protected by the motion detectors. A complete line of accessories is available so that the system can grow according to the needs of the user.

Door transmitters may be used on both in-swinging, out-swinging and sliding door openings, and can be affixed either with screws or special adhesive double-sided tape. The window transmitters can be used on most windows, including one unit for double-hung windows. Two types of magnets are offered: a plastic card unit, and a flat type.

The dialer has four channels. One each is for burglary, fire, panic, and one for a future program. The dialer is encoded with the phone number for the Central Station Monitor.

The auxiliary alarm horn may be used either for exterior or interior applications. It is rated at 120 decibels and comes complete with 50 feet of extension wire (the only item in the line which has a wire).

Also available is a Class "A", U.L. approved smoke and ionization detector, panic button, and a motion detector which covers up to a 30 by 40 foot



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Wireless smoke detector.

that he/she is in compliance with the codes pertaining to a wireless installation.

When the security system is used as a self-contained unit, the Master Control unit is plugged in and the desired number of transmitters are installed, along with the optional smoke and motion detectors. Then, when activated by any intrusion, fire or emergency, the Jet alarm will sound the horn in the basic unit and optional auxiliary horn.

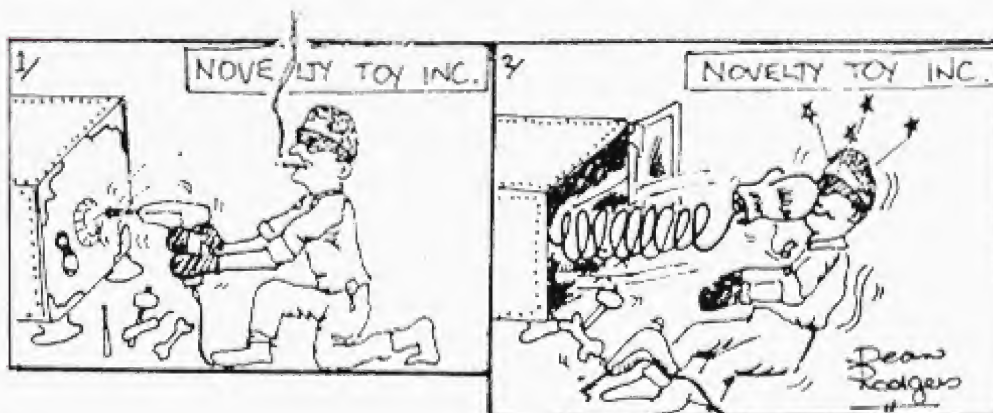
But, when coupled to the auto dialer, the alarm places the locksmith

in the same category as the established alarm companies because of the central station alarm telephone service. When the station receives an alert, it will take the following steps: 1) Call the customer to insure there is no false alarm. 2) Contact the local law enforcement personnel. 3) Call the local fire department if the smoke detector has been activated. 4) Telephone an individual listed by the alarm user.

Each unit shipped from Jet Security Systems will be registered to the distributor, and the locksmith will register the unit sold to the end user. When a dialer is incorporated into the system, the user must pay a fee for the Central

Station monitoring.

If the customer selects to purchase the equipment and auto dialer from the locksmith and install it themselves, the locksmith will only be required to plug the dialer into the special RJ31X jack (by others), contact the Central Station by a special WATS number and per their direction test out the system. The locksmith must also obtain all of the pertinent information from the user as to the emergency phone numbers and signatures on all of the documents so that both the locksmith and the Central Monitoring will have complete knowledge relating to the location of the dialer at all times. ■



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Berreta/Corsica: A to Z

"Before we can begin to make a key, chances are we'll have to open the door. They are different and require a different method for opening each model."



Send your car opening questions to: Shirl Schamp, *The National Locksmith*, 1533 Burgundy Parkway, Streamwood, IL 60107.

by Shirl Schamp

After receiving mail requesting information (everything from A to Z) about the Beretta and the Corsica I feel that even though these cars have been written on before, that we should do it again for the benefit of those who haven't had the opportunity to read the

previous articles. Besides, to re-approach the subject fresh, we might explain it from another angle and possibly cover something that's been missed.

Before we can begin to make a key, chances are we'll have to open the car. Even though both the cars are equipped with the same type modular locking units, they are different and require a different method of opening. Modular units are where the linkage is encased within a structure prohibiting you from making contact with the linkage as you have in the past with other makes and models.

The Corsica is very simple to open

and doesn't require any special tools beyond a Slim Jim. I use what is called a Super Jim, available through all the distributors. First insert a wedge just ahead of the door handle and then insert the Jim. (*See photograph 1.*)

What you want to do is place the end of the Jim on the pawl of the lock. The pawl is the cam on the rear of the lock that is connected to the linkage. I know some of you are thinking that the pawl is rigid. True but you can apply enough direct pressure either downward or by tapping the pawl to disengage it enough to open the door. It won't fully disengage so hold the pressure on the cam while you open the door. You can pull

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1. Wedge and Slim Jim inserted in Corsica door.

the rubber back away from the window enough to easily see the cam of the lock in the daylight without a flashlight.

The Beretta is different. The lock is located on the center post rather than down into the door. This doesn't make or allow it to be accessed the same as the Corsica. There are a number of methods being used.

First I might say you should never go on any call with only one method at hand. We use a Beretta tool put out by HPC, and we use the Door Jack and Beretta tool put out by ABC Lock Co. There are many other good tools available though.

First insert two wedges, one just ahead of the inside button and the

other just behind the inside button. Then insert the under-the-glass tool into the door. Have the loop facing toward the front of the car. (See photograph 2.) Lower the tool into the door



2. Properly positioned under-the-glass tool.

just until it clears the bottom of the glass. Pull upward with a slight twist on the tool until it begins to catch the bottom of the glass in its loop/slot.

Pause for a moment and remove the two wedges which will relax the glass allowing an easier penetration into the car on the opposite side of the glass. Continue pulling up until the tool comes out on the inside and clears the window sill. (See photograph 3.) Turn



3. Tool clearing the window sill inside of the car.

the tool and bring it down over the sill locating the tip behind the inside button. At this point I find it will work best if I walk the outside just a little ahead of the inside. This allows you to simply pivot the tool to push the button to the open position.

I think this is probably the tool of the decade, the only thing I don't like about it is that I didn't think of it first. It's turned one of the hardest cars to open into the easiest.

Making a key for these is basically the same process as for any other General Motors lock. One key fits everything on the car except the ignition. Granted the ignition column is different on these cars. We will explore a Beretta tilt column and a Corsica standard column. But first to resolve the secondary key, I suggest you remove and disassemble a door lock on the Beretta. The removal of the lock



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from the door doesn't even require removal of a panel, just an inspection cover on the edge of the door in line with the lock.

The secondary key on the Corsica can be made using the glove compartment lock. This lock has four of the six wafers, the first four. To obtain the last two cuts use a progression system. Since you are searching for the last two cuts rather than the first two cuts, you must take the standard system and either reverse it, or reverse your thinking (i.e., Standard system: 1st key - 11, 12, 13, etc. reverse would be: 11, 21, 31 etc. Or you could simply refocus your thinking to read the key from tip to bow rather than from bow to tip).

Reading from bow to tip like you are accustomed to, here's a rewritten system to obtain the 5th and 6th positions:
1st key-11, 21, 31, 32, 42, 43, 53, 54, 55
2nd key-12, 13, 23, 24, 34, 35, 45
3rd key-22, 33, 44

About the only similarity in pulling the steering columns between the two would be the removing of the horn pads and pulling the wheel, then removing the shroud. I'll run that portion of my explanation together, and then branch off individually.

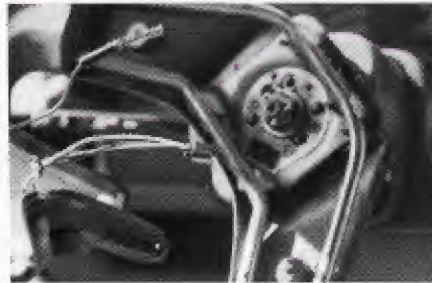
Check behind the steering wheel between the wheel and the dash. This is true anytime you pull a horn. All horn pads either snap on or are held on with two screws from the back. These are held on with two screws requiring a 7mm socket drive. Now lift the horn and disconnect the wires. The horn wire itself is released by pushing in and turning slightly and then releasing. That's the top wire in photograph four.



4. Top wire is the horn wire. Disconnect this.

The bottom wire in that is just a male/female plug. You insert a screwdriver between the plug and bottom side to depress the keeper and while doing this merely unplug the wires.

Now use a pair of trawer pliers and remove the clip on the end of the spline, just above the spline nut. (See photograph 5.) I suppose it has been put there to keep the spline nut from ever back-



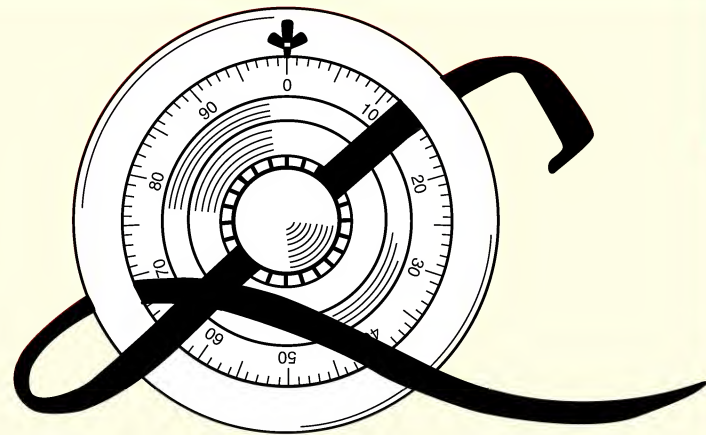
5. The clip on the end of the spline, just above the spline nut is shown.

ing off on its own, so be sure not to lose it and make sure it is replaced. (See photograph 6.)



6. Replacing spline nut clip.

Use a breaker bar with a $\frac{7}{8}$ " socket to loosen the spline nut. I suggest you remove the spline nut and use a wheel



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puller, but I also know of some locksmiths who prefer to forcibly remove the wheel by hand. If this is your choice then at least leave the spline nut started on the end of the spline to keep the wheel from suddenly coming off and hitting you in the face. I think a good puller should be used. (See photograph 7.)



7. Wheel puller attached.

Take notice at this point that General Motors marks the spline to insure that the wheel is always aligned correctly. There is a small line on the end of the spline and another on the wheel itself. Match the two when you replace the wheel.

Next remove the wheel, exposing the horn assembly. (See photograph 8.) Remove the assembly. Now remove the hazard button, and the turn indicator



8. Horn assembly exposed when wheel is removed.



9. Removal of the hazard button...



10. ...and the turn indicator.

(see photographs 9 and 10). In the upper right hand corner there is a screw that secures the shroud. (See photograph 11.) Remove that. Now the shroud can be lifted off; sometimes, a slight bit of wedging from the bottom of the shroud will help it release.

At this point I'll split the cars and



11. Location of shroud holding screw.

approach them separately, because they will differ from here on. Starting with the Beretta tilt column:

Remove the turn indicator assembly. (See photograph 12.) Next, in the lower right hand corner you'll notice a plug with a square hole in the end. Remove this by inserting a screwdriver into the hole, press inward, turn and release. (See photograph 13.) Remove the spring. Be sure to place this somewhere you won't be getting grease on the cus-



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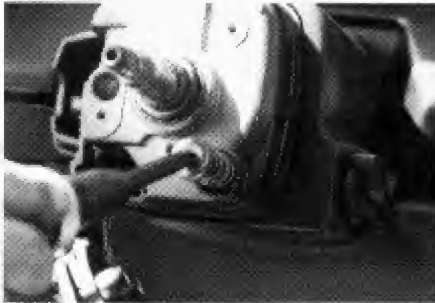


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12. Removal of the Beretta tilt column turn indicator assembly.



13. Removing plug with a square hole in the end.

tomor's upholstery. At this point you have to work inside the small hole, something like performing surgery.

It does help if you have the column tilted up while working on it. This will create some room through the bottom. Another good idea that might help is to insert a flex light into the column from the far left to light up the area inside

where you want to work.

Inside, directly in front of the screw that's securing the lock is the buzzer assembly unit. On the earlier G.M. cars this unit always came out as two pieces and had to be reassembled before replacing. Fortunately on the Beretta and the Corsica it comes out as a unit, not separated. If you are having trouble determining the location of the screw that's securing the lock, go to your truck and get another lock for this model and measure the distance back from the face to the screw location 1 1/2" (Briggs #700172).

So, what we have to do is reach into the hole with something and remove this buzzer assembly. I suggest using something that will grab the unit and clamp onto it, much like a pair of needlenose vice grips. The vice grips are a little too large to enter the hole and leave room to see what you are doing. We use hemostats, any variation of this will do. (See photograph 14.)

Pull straight out, lay the unit (still inside the column) off to the side. The screw holding the lock in uses a #20 torx driver. I suggest you use a magnetic screwdriver to remove the screw (available at any tool store). This way the screw will come out with the tool.



15. Magnetic screwdriver used for lock holding screw removal.



14. Using hemostats to remove the buzzer assembly.

(See photograph 15.)

At this point the lock will pull straight out. The code is printed on the side of the lock unless the lock is a replacement unit and had replaced the original one. It also is the type with the sector gear attached to it. You can now make the key, repair it, or replace it. This is your choice. The locks whole-



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sale reasonably enough that I would rather replace than repair it. My time is worth more than the lock. (See *photograph 16.*) Reverse the procedure to put the lock and column together. When you take apart the column, lay each thing in order to simplify reassembly.



16. Inserting a replacement lock as opposed to repairing the old one.

A handy hint: Make yourself a tray to hold parts. Use an old magnetic sign to line the bottom of the tray. This doesn't help on the brass parts, but is excellent for all the others.

Now back to the Corsica. We left the Corsica when we pulled the shroud. First we want to remove the keeper ring on the spline. This can be achieved with an awl and a screwdriver, or you can make life much easier by purchasing a removal tool that's put out by Borroughs, part #BT-8724. (See *photograph 17.*) It screws onto the end of the column. (See *photograph 18.*) Remove the keeper; now remove the ring on top of the spring. (See *photograph 19.*) Remove the spring and the ring that is below the spring.



17. Borroughs keeper ring removal tool, used on the Corsica.



18. Removal tool screwed onto the end of the column.



19. Spring ring removal.

Here's a big difference between the two (tilt and non-tilt). The plate that tilted up on the Beretta tilt column, is going to be removed on this column. There are three screws, plainly visible on the face. Remove them and (see *photograph 20*), just let it hang down in



20. Removing visible screws from the face of the column.

front of the column exposing the inside of the shroud (see *photograph 21*).



21. Face hanging loose, exposing the shroud.

Continued on page 171



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Schlage Lockset Service

"Service requirements for the Schlage 'A' series are rare and are occasioned in most cases by physical abuse or by improper installation."



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by Jack Roberts

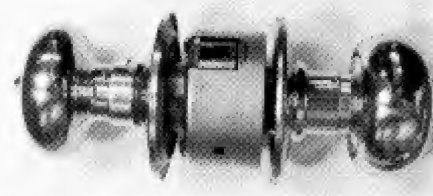
The word *function* as used in our industry, refers to a design which allows a lockset to perform a particular task with relation to the degree of security desired. The *entrance* function, as found on cylindrical locksets, is normally used on those doors where ingress and egress is uncontrolled until such time as the door is physically

locked by pushing or turning a button alongside the knob, or by pushing and turning the entire knob.

This action "locks" the outside knob, making it "rigid," which in turn prohibits ingress without the use of a key. Turning the locking button of some entrance locksets also causes the inside knob to become rigid and the button must be turned to the unlocked position before either knob will turn. Other designs cause the locking mechanism to release when the inside knob is turned.

Since each manufacturer has identifying numbers for the products that it produces, you should understand those numbering systems and the informa-

tion which can be derived from them. The Schlage Lock Co. uses "A" to designate standard duty. "53" denotes the entrance function. (See photograph 1.) "P" indicates pin tumbler and "D" means that a deadlocking latch is furnished. (See photograph 2.) Other numbers and letters that follow will indicate the style of knob design, the finish, the backset and any special



1. Schlage A53PD entrance lockset.

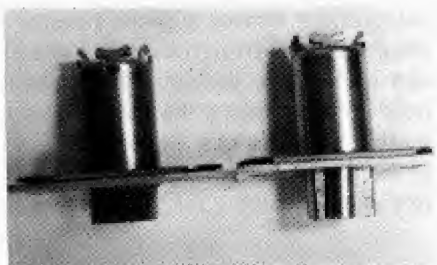


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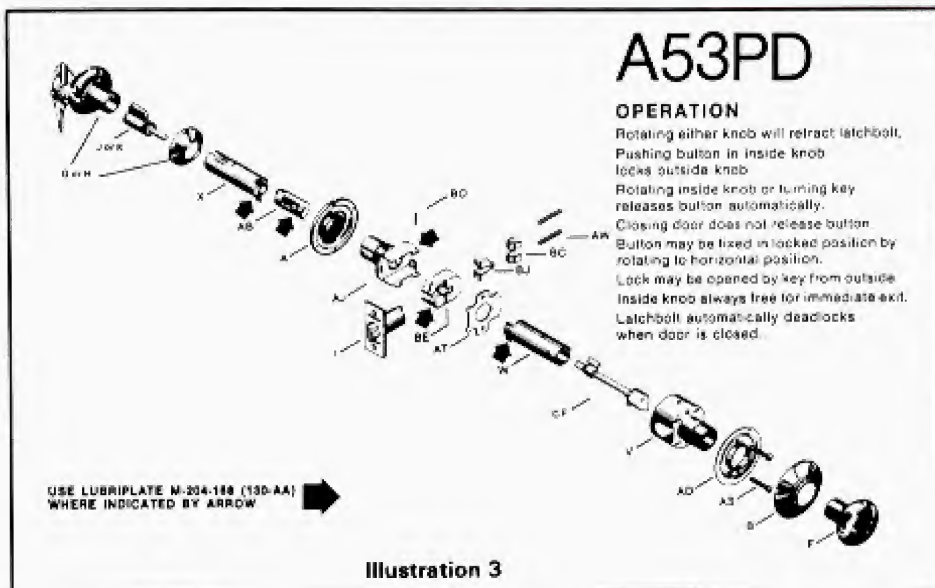
2. A deadlocking latch (left) and spring latch (right).

applications that may be desired.

The Schlage "A" series entrance lockset is designed for standard duty applications as might be required for residential, office, or light industrial usage and is locked by pushing or by pushing *and* turning the button in the center of the inside knob.

When the button is pushed only, ingress is prohibited until the proper key is inserted into the cylinder and turned. This action releases the internal locking mechanism (*plunger unit, item CF, illustration 3*) permitting uncontrolled ingress. In like manner, turning the inside knob releases the internal locking mechanism for immediate egress.

When the button is pushed and turned, the outside knob is in an "always locked" or rigid state and will



USE LUBRICATE M-204-188 (150-AA) WHERE INDICATED BY ARROW

Illustration 3

remain that way until released by turning the button and then turning the inside knob which releases the locking mechanism. The inside knob is always free to turn, but *does not* release the locking mechanism until the button is turned.

In this state, when the proper key is inserted into the cylinder of the outside knob, and turned, internal physical action retracts the latch, permitting ingress, but does not unlock the lock.

A53PD

OPERATION

Rotating either knob will retract latchbolt. Pushing button in inside knob locks outside knob. Rotating inside knob or turning key releases button automatically. Closing door does not release button. Button may be fixed in locked position by rotating to horizontal position. Lock may be opened by key from outside. Inside knob always free for immediate exit. Latchbolt automatically deadlocks when door is closed.

The outside knob remains rigid until such time as the locking button is turned to the unlocked position and the inside knob is turned, as explained above.

Service requirements for the Schlage "A" series are rare and are occasioned in most cases by physical abuse or by improper installation. This would include loose mounting screws (*item AS, illustration 3*), improper engagement of the latch prongs with the lock

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housing, (see illustration 4) or the lockset being installed with the keyway upside-down.

Normal service would be changing combinations, master keying or removal of a broken key or other obstruction in the keyway. All key-in-knob (cylindrical) locksets are designed to be removed from the inside, towards the outside. Some must be completely removed from the door in order to service the cylinder to change the combination.

The Schlage "A" series is designed for easy removal of the outside knob

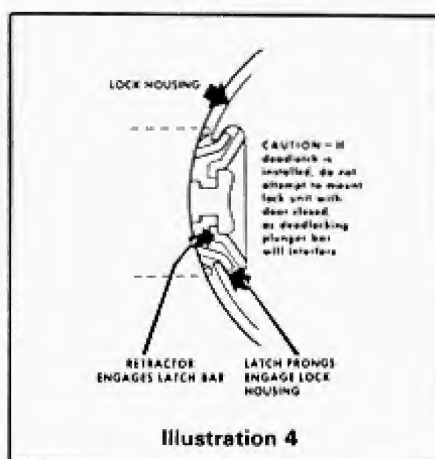
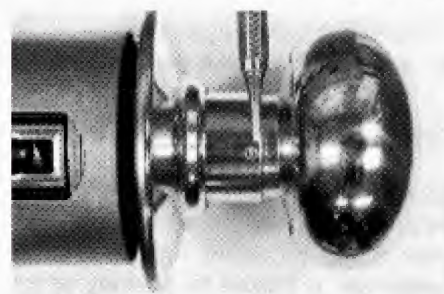


Illustration 4

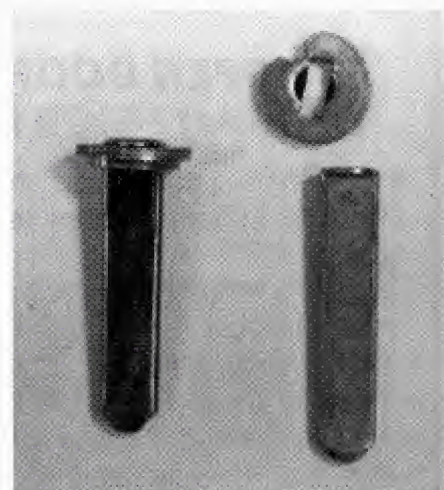
for cylinder service without removing the entire lock from the door. The hub cap of Schlage locksets has a "poke hole" for accessing the "knob catch" which will always be on the side towards the edge of the door, or towards the latch. (See photograph 5.)



5. Poke hole indicated for accessing the knob catch.

The pointed end of the spanner wrench, or a similar poke tool is inserted into the poke hole to depress the knob catch and the knob is pulled from the spindle. Note that the point of the tool, as it extends into the cavity, will prevent the knob from sliding off the spindle and must be slowly extracted as the knob is removed.

This action is easily performed on the inside knob at any time. The outside knob, however, is protected against felonious entry by the cylinder tailpiece, (cylinder bar, see photograph 6), which blocks the movement of the knob catch until the tailpiece is turned 90 degrees by use of the proper key or by picking. Note that the knob is



6. Cylinder tailpiece which protects the outside knobs.

not turned; only the cylinder plug is turned. This action will allow the knob catch to be depressed and the knob removed as previously described.

The Schlage "A" series knob consists of two parts: the knob and knob sleeve and contains the cylinder. The cylinder is removed from the knob by first removing the sleeve. Do not attempt to

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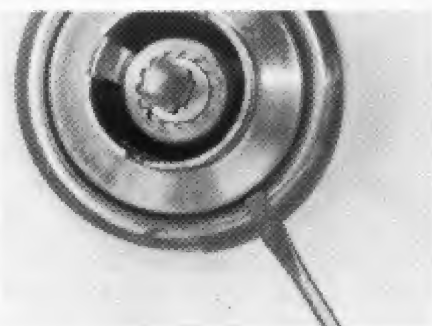
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remove the sleeve by prying with a pointed tool or a screwdriver as this may cause scratches on the knob finish. (See photograph 7.) Instead you should insert a key into the keyway and gently tap the head of the key which will force the cylinder against the sleeve and facilitate removal. (See photograph 8.)

Another method which can be employed is to gently rap the end of the knob hub on your work bench which will cause the cylinder to force the sleeve from its recessed position. (See photograph 9.) Excessive tapping or rapping of the knob could cause distortion of the hub and/or the knob.

With the knob sleeve removed, withdraw the key and the cylinder can now be slipped out of the knob for service.

Schlage "A" series locksets will be found with either 5 pin or 6 pin cylinders. (See photograph 10.) Some knob designs limit the physical space into which the cylinder rests and a five pin cylinder is the only one that will fit. A five pin can be utilized in a knob which is designed for a six pin by the use of an adaptor (extension) and a longer tailpiece. (See illustration 11.) Unless ordered "pinned 6," all Schlage



7. This demonstrates incorrect method of sleeve removal.



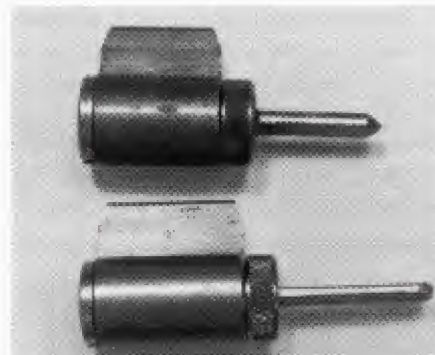
8. Proper method of sleeve removal.

6 pin cylinders are shipped from the factory pinned 5.

The "C" keyway is perhaps the most common that will be encountered but any one of the various keyways which



9. Gentle rapping of knob to loosen sleeve.



10. A five pin (top) and six pin (bottom) cylinder.

Schlage produces can be expected. (Refer to your key blank catalog for Schlage keyways.) When attempting to



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5 PIN CYL. CONVERSION
Parts necessary to
adapt 5 pin cyl. for
6 pin knob use.

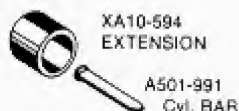


Illustration 11

pick or impression a Schlage cylinder it is always best to assume that it is a six pin and that there are in fact, six pins.

Practice with a hook pick will help you develop the skill of determining the actual number of pins, but by assuming six where there are only five puts you that much ahead of the task. *Always use a six pin blank when impressing unless you are absolutely sure that you*



12. Longer six pin blank (left) and 5 pin blank (right).

have encountered a five pin cylinder. The longer six pin blank (see photograph 12), cannot be inserted fully into a five pin cylinder. All of the Schlage

cylindrical lockset cylinders, with the exception of the "hotel function" are serviced in the same manner regardless of the size, 5 pin or 6 pin, or the keyway.

If the cylinder has been compromised by picking, constant pressure must be maintained on the tension wrench until the knob is removed from the spindle. Failure to maintain this pressure will allow the retractor (slide) springs, which have been compressed, to force the retractor back to its locked position which in turn will cause the tailpiece to rotate and you now will have to repick the cylinder.

Note that some functions such as classroom or communicating do not retract the latch when the plug is turned, but actually unlock the knob spindle. If no spring pressure is felt against the tension wrench the plug will remain in position until the knob is removed. If spring tension is felt, *hold the pressure*, press the retainer and remove the knob. When the cylinder has been removed it may then be disassembled for service.

The cylinder assembly consists of the plug, shell, cap, cap pin, cap spring, tailpiece (cylinder bar), bottom pins, top pins and pin springs. (See illustration 13.)

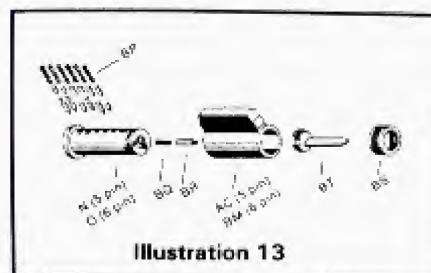
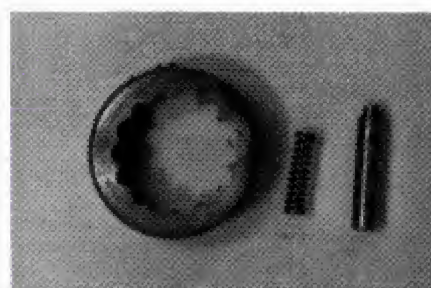


Illustration 13

The first step in disassembly is removal of the cap which is threaded onto the end of the plug and is held in place by the cylinder cap pin. You will note that the inner edge of the cap has serrations for the cap pin which allow proper adjustment of the plug in the body on final assembly. (See photograph 14.)



14. Serrated cylinder cap edge for proper adjustment.

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Depress the pin with a small probe and unscrew the cap from the plug. (See photograph 15.) Constant pressure must be maintained on the pin to keep it free of the serrations in the cap.



15. Pin to depress for cap removal.

(A tool is available which fits into the serrations, depresses the pin and allows quick removal of the cap.) Note that if the plug has been picked, care should be taken to hold the plug in the picked position while removing the cap. Failure to do this will allow the plug to turn to the locked position and it must then be repicked or shimmed before removal is possible.

When the cap has been removed, the plug may be taken from the body with a follower. Remove the cap pin and

spring and place them aside. Since the contents of the bible (the upper portion of the body which contains the driver pins and springs) are unknown, it is a professional practice to check each chamber for master pins, compressed springs, stuck drivers and foreign material.

This can be accomplished rather tediously one chamber at a time by the use of the follower and a small probe such as the tip of a screwdriver. A faster and more positive procedure is to remove the follower and allow the contents to spill on the workbench. Each chamber can then be inspected with a small light and cleaned with WD-40 or a similar substance. The drivers and driver springs can be examined, cleaned of foreign material, replaced if necessary, and reinserted into the chambers of the bible.

The contents of the plug may then be dumped on the workbench, the plug thoroughly cleaned and checked for wear, repinned as required and reinserted into the body.

With the plug inserted and turned to the "locked" position, replace the cap pin spring and cap pin, place the tail-piece in the cap, and screw the cap onto the end of the plug. Again, pressure

must be maintained on the pin so that it will remain clear of the cap serrations while the cap is being screwed onto the plug. Tighten the cap "finger tight" and then back off three or four pin serrations. Insert the proper key and check that the plug turns freely in the body.

If it is tight, loosen the cap another serration and recheck for free turning. If the cap is loosened a full turn and the plug is still tight, you have not pinned the plug properly, (i.e., one or more of the bottom pins are too long, and the plug must be removed for repinning).

When the plug turns freely in the shell, remove the key. If the key will not slide easily out of the plug, the cap is too loose which allows the plug to move laterally in the body and will not permit the bottom pins to enter the chambers of the bible. Tighten the cap one serration at a time until the proper adjustment is achieved. (The plug turns freely and the key is easily removed.)

Insert the cylinder into the knob, replace the knob sleeve, insert the key and place the knob in its proper position on the spindle for either left or right hand application. Push the knob onto the spindle until it stops at the catch. Using the poke tool, depress the knob catch, turn the key 90 degrees and



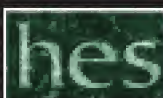
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continue to push the knob onto the spindle until it is engaged by the knob catch. Remove the key and pull on the knob.

If the catch has been properly seated the knob will remain in place; if the knob slides off the spindle, repeat the above operation until the catch is engaged.

When a door is locked and the key has been lost or misplaced, picking the plug is the first approach to getting the door open. Schlage pin tumbler cylinders are manufactured to close tolerances and often require great skill in picking. If your efforts at picking appear to be fruitless after five or six minutes and all other means of entry have been exhausted (windows, other doors, etc.) the cylinder will have to be drilled at the shear line in order to turn the plug and tailpiece so that the knob catch can be depressed and the knob removed. The cylinder will of course have to be replaced.

When a door is open and the key has been lost or misplaced, the plug, again, must be picked before the cylinder knob can be removed. If picking efforts are unsuccessful the cylinder can be drilled at the shear line or the lockset

can be removed from the door for complete disassembly.

Although drilling may often be considered as an amateur approach to service, it is often the most professional method if properly performed. Complete disassembly takes time, skill and patience and should be learned, but *not on the job site.*

We will not detail the complete disassembly procedure of the A53PD since it is rather straightforward up to the point of having the complete exterior knob assembly in your hands. All parts should be laid out on your workbench in the order in which they are removed. (*Follow the exploded view in illustration 3.*)

The exterior knob assembly will consist of the knob and cylinder, the spindle and cam unit, the outside rose and the hub assembly. Lift the cam unit, (*item AB, illustration 3*) out of the spindle. The tailpiece and cylinder cap can be seen in the center of the spindle. This will also allow you to see the protrusion of the knob catch and the manner in which the tailpiece blocks the movement of the catch.

The tailpiece must be turned before the catch can be depressed. The

Schlage cap removal tool is almost essential for this operation, however, in the absence of the proper tool proceed as follows:

Use a long probe to depress the cap pin and, at the same time, attempt to move the cap one serration in a counterclockwise direction. This is a rather confined workspace of $\frac{3}{8}$ " diameter and $1\frac{1}{4}$ " down inside the spindle. Often two probes can be used, one to depress the cap pin and the other to turn the cap. Patience is a virtue when performing this operation and should be practiced when there is plenty of time and no distractions.

When the cap has been turned one or two full turns, depress the cap pin again and attempt to turn the tailpiece with the probe. When you have turned the tailpiece 90 degrees, depress the knob catch, remove the knob and proceed with servicing the cylinder. Reassemble the complete lockset in the reverse manner of disassembly and it is ready to be mounted on the door.

In this article we have used common and accepted terminology within the industry of certain parts, with the manufacturer's name of the part shown

Continued on page 172

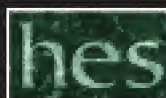
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"Over the years, Trans-Atlantic Company has expanded their product lines and they now offer most types of commercial grade door hardware products."

Trans-Atlantic Company is one of the oldest and largest U.S.A. stocking importers of both commercial and residential grade builder's, security and shelf hardware product lines.

They were organized in 1951, long before most all of their current U.S.A. import competitors of similar product lines were in this same field of business. Over the years, Trans-Atlantic Company has represented some of the most famous foreign manufacturers of builder's hardware. For 30 years they were the sole U.S.A. stocking import distributor of all of the different series of Dorma German-made hydraulic door closing devices. This relationship

only ended when Dorma purchased their own U.S.A. door closer factory, namely, the Reading Door Closer Company in 1982.

When Trans-Atlantic Company started their business, the factories in the Far East were not yet in position to supply builder's hardware to the U.S. market. Trans-Atlantic Company initially represented many famous European manufacturers. This included hydraulic door closers from Dorma of West Germany, residential and commercial grade hinges and hinge hardware from Breuer & Schmitz of West Germany, a complete line of American specification packaged fasteners of

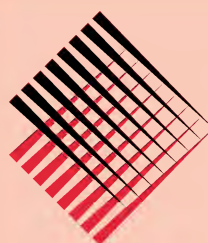
V.T.R. of Belgium, piano hinges from Paul Hettich Co. of West Germany and Roussel and Servais of Belgium, and mortise key and thumbturn cylinders from Meroni of Italy.

Trans-Atlantic Company was the first importer of cylindrical door locks from foreign sources. Starting in 1954, they represented Safe Lock Company of Italy and imported a full series, including all popular functions of ANSI Grade Two cylindrical locks. At that time, the Safe Lock Company of Italy was the only foreign manufacturer tooled up for the production and supply of American-style fully cylindrical locksets.

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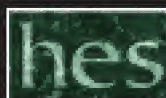
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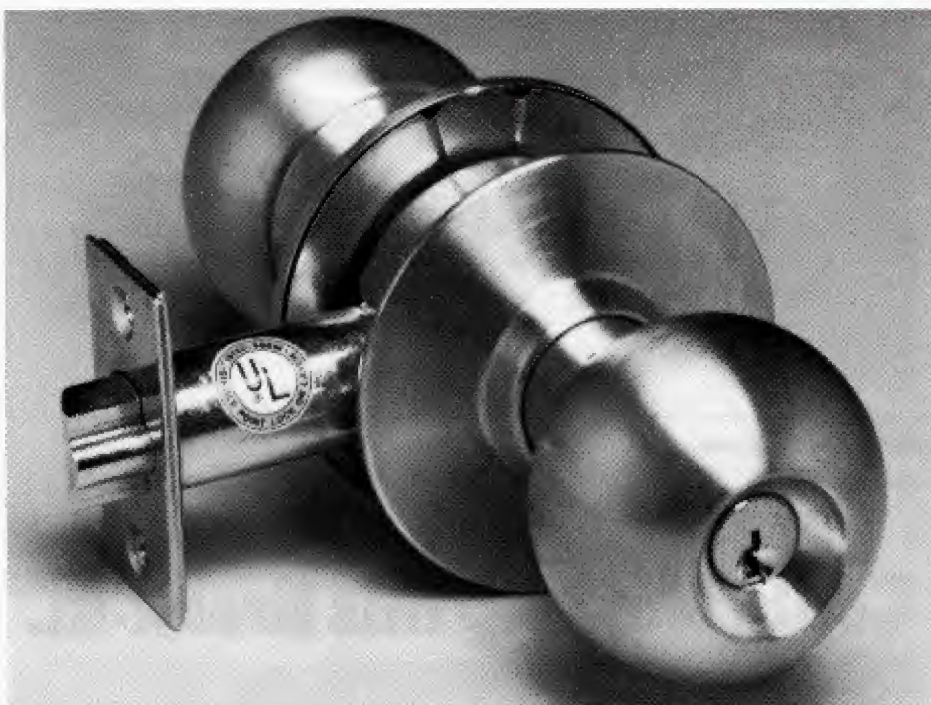


As a result of the appreciation of the leading Western European currencies, Trans-Atlantic Company had to transfer their buying to various important builder's hardware manufacturing sources in the Far East. They then became one of the leading U.S. stocking importers of builder's hardware from the leading Far Eastern factories.

They represented, for nearly 20 years, the Goal Lock Company of Japan and were their only U.S. stocking import customer. Also, for many years, they were one of the only stocking import distributors of the NHN Door Closer Division of Daihatsu Industries of Japan. For a number of years, they were the exclusive stocking importer of American-style cylindrical and mortise locks from the Alpha Lock Company of Japan. They purchased a full assortment of commercial grade hinges from Eiwa Kogyo of Japan. As a result of the dramatic increase of the Japanese yen against the U.S. dollar, further transitions of Trans-Atlantic Company's buying sources became necessary.

Trans-Atlantic Company continues to represent many famous foreign builder's hardware manufacturers for the U.S. market.

Over the years, Trans-Atlantic Company has continuously expanded their assortments of product lines to a



Taco knob lock set.

point where they now offer most types of commercial grade door hardware products including hydraulic door closers, wide assortments of hinge hardware, wide assortments of commercial grade locks, panic exit devices, door viewers, door holders, door knockers, mortise flush bolts and many other door hardware accessory product lines.

The management of Trans-Atlantic Company is a very experienced staff of people in the imported commercial builder's hardware field. As a result of this, they have the capabilities of expanding their product lines to include greater assortments of commercial grade builder's and door hardware products, many of which have features that are advanced and not, as



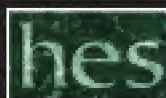
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yet, available from U.S. factory sources.

Norman Millman, president of the company, says that Trans-Atlantic Company is not the replacement of the fine major American commercial builder's and security hardware manufacturers. Instead, they consider themselves an excellent back-up sources for all of their customers, nationwide. They claim that many of the customers that deal with them do so when they are in need of consistent, top quality merchandise, equal in quality and construction to what they secure from their U.S. sources, but when they are in need of lower costs to meet keen market competition.

Norman Millman states that traditionally, if there is not a fairly substantial savings available when comparing a U.S. product with a similar foreign-made product, the U.S. commercial hardware buyer will, generally, purchase the U.S.A.-made product that is equal. He also accepts this fact and agrees with this policy of most American commercial hardware buyers.

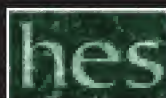
However, he accepts the back-up position as being the main position of reputable stocking commercial builder's hardware importers like Trans-Atlantic Company and feels that there is definitely a place for such reliable stocking importers like Trans-Atlantic Company in the U.S. commercial builder's hardware market.

Trans-Atlantic Company has gained the respect of many important customers, nationwide, and they continue to enjoy this close and good relationship with the trade and, in turn, they continue to expand their product lines to make them a better and better secondary source of supply for the widest possible assortment of commercial grade builder's and security hardware product lines.

Trans-Atlantic Company maintains a well rounded inventory of all of the product lines contained in their company catalog in their Philadelphia 100,000 square foot warehouse which enables them to service most of the orders they receive on an immediate delivery basis. ■

OOPS!

In June's code section we listed an incorrect key blank for the Mitsubishi codes (E5001-7000). The correct blanks are: Taylor X176, Silca MIT8.



Rixson's Smok-Chek

"The Smok-Chek V model includes a smoke detector module, an electro-magnetic door holder/release, and a hydraulic closer. Fire automatically closes the door."

by Frank Pasek

Since smoke-activated door controls are often an integral part of a building's fire/life safety equipment, learning how to service them offers the astute locksmith additional opportunities to expand his business.

Most problems encountered with high-quality, smoke-activated devices such as Rixson-Firemark's Smok-Chek units are corrected with simple adjustments to the door control mechanism and can normally be handled on the site.

The major exception is the unit's smoke-detector module. If the problem lies with the smoke-detector module, it must be repaired or replaced by the

factory. Because of the critical nature of its function, smoke detector modules are U.L. listed. To maintain this listing, Underwriters' Laboratories, Inc. had mandated that only the factory can repair this portion of this unit.

How Smok-Chek works. A complete smoke-activated door control device, such as Rixson-Firemark's Smok-Chek V model, includes a smoke detector module, an electromagnetic door holder/release and a hydraulic closer. When the smoke detector senses products of combustion, it sends a signal to the system's alarm panel, or the slave unit on an independent pair of doors. This cuts the power to the electro-magnet in the door holder/release

mechanism which releases the door and it automatically begins to swing closed. How quickly the door closes and latches is determined by the valve settings in the hydraulic closer.

Before working on any smoke-activated door controls, remember to notify the necessary building and fire authorities as disconnection of power may trigger an alarm.

When your Smok-Chek is not operating properly, the most common problems are: 1) The door slams, or closes too slowly. 2) The door will not hold open properly. 3) The door is noisy going in or out of hold-open. 4) The smoke detector does not work.

If the door slams or closes too slowly,

Major
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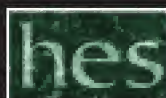
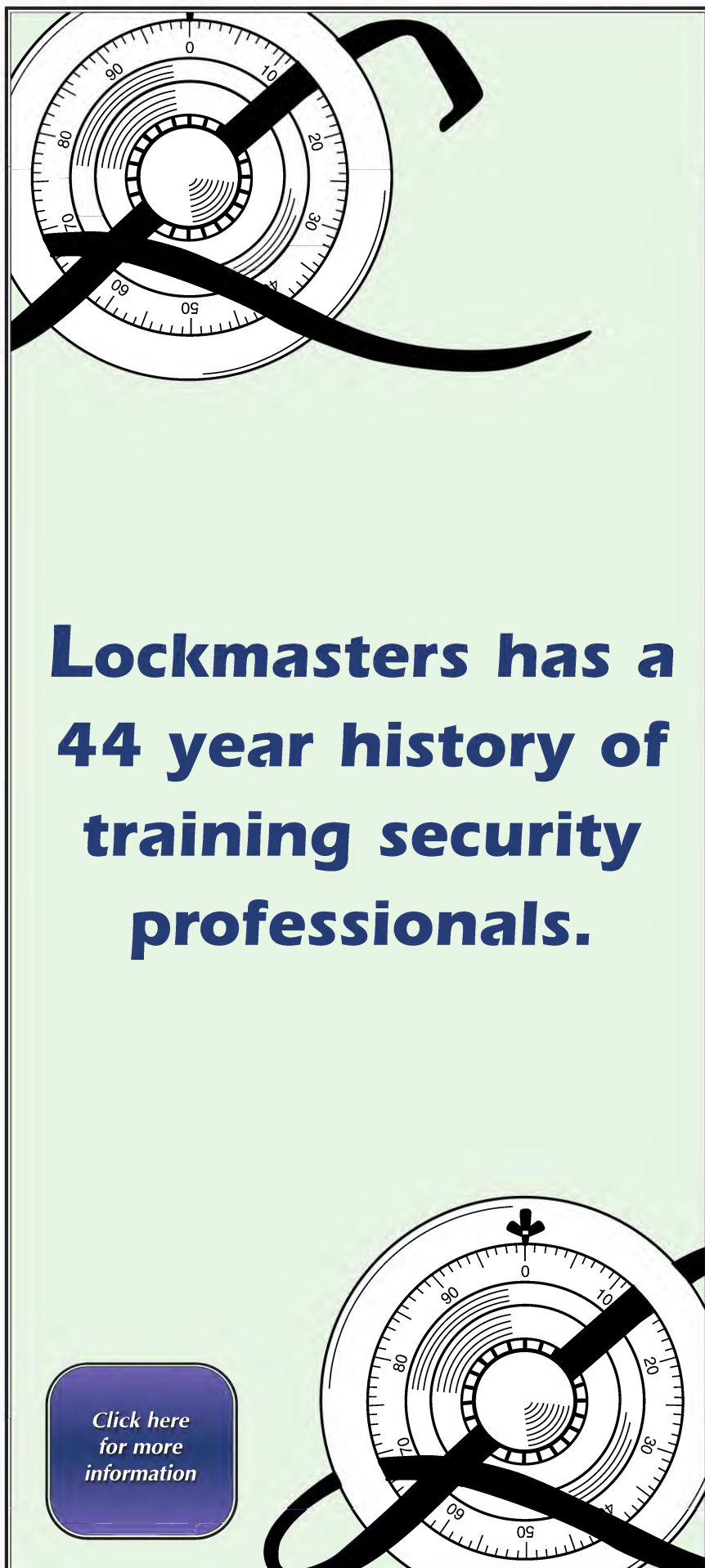
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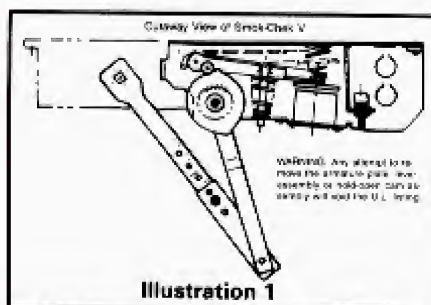
the valves which control the closing speed and the latch speed may need some simple adjustments. The closing speed valves are located toward the pivot or hinge side if the unit is mounted on the pull side of the door, or toward the lock side, if it is a push-side installation.

The closing speed valve governs the door as it moves from the fully open position to within about 15 degrees of closing. The latch speed controls the door's movement from within about 15 degrees of closing to the fully closed position.

To make the necessary adjustments, simply turn the valves clockwise to slow the door's motion, or turn them counterclockwise to speed up the door's action. If adjusting the closing speed valves does not correct the problem, the closer should be replaced.

If the door will not hold open, you could be looking at a malfunctioning electromagnet or an improperly set cam.

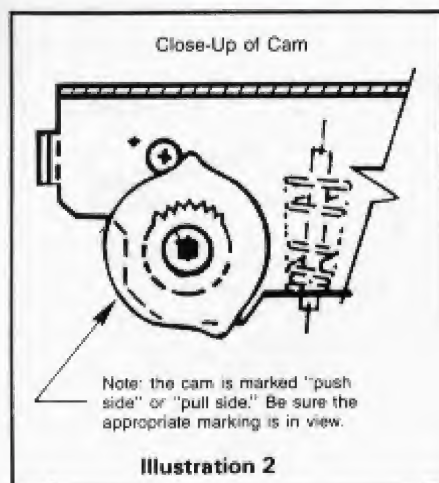
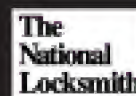
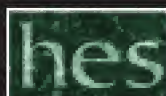
To check the magnet, leave the power on, remove the cover, and make sure the wires are attached. (*See illustration 1.*) If the magnet is malfunctioning, the armature plate can be easily pulled away from the magnet using only your hand. If a malfunctioning magnet is the source of the problem, call the manufacturer to order a new one. Be sure to specify the magnet voltage when ordering.



Cam adjustments on quality units, such as Rixson's Smok-Chek series can be made to permit the door to hold open at any point between 85 and 105 degrees, if the units are mounted on the push side. If they are mounted on the pull side, they can be adjusted from 85 to 135 degrees or 130 to 180 degrees. This action is controlled by the cam. (*See illustration 2.*)

To make the adjustment, simply place the door in the desired position and manually rotate the cam until you feel it engage the roller.

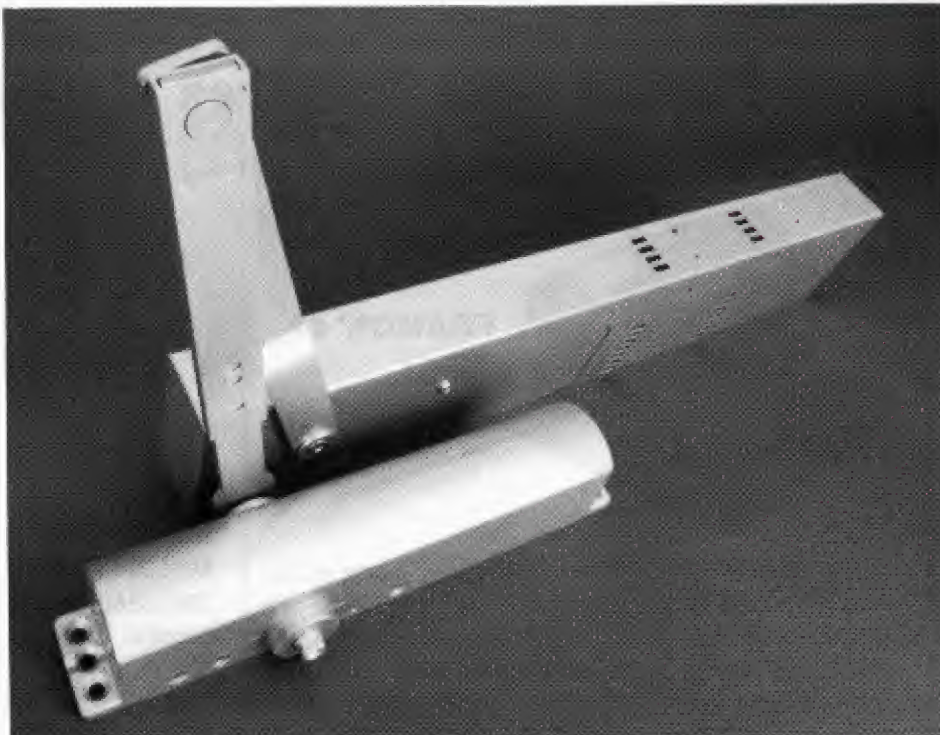
If the door is noisy going in or out of hold-open, check the arm, the spindle of the holder/release and the portion of the arm that fits into that spindle. If the



arm is broken, order a new one.

To check for spindle-related problems, remove the arm from the holder. If either the arm holder or that portion of the arm that inserts into the spindle is cracked or shows signs of excessive wear, order a replacement.

If the detector module is not working, try this simple test. Verify that the unit is powered by the proper voltage and is energized. Now, blow smoke through or hold a burning match near the louvers on the cover. If the unit doesn't respond, it may simply need to be cleaned.



The Rixson-Firemark Smok-Chek.

To clean, blow out the dust in the louvers with a hand syringe or low-pressure, oil-free air hose. Repeat the smoke or match test.

If the unit still doesn't respond, check to see if it is properly wired. If it is out

of order, notify building personnel and send the unit back to the manufacturer for repair or replacement. Remember, to protect the U.L. listing, all elements in the smoke-detector module must be repaired by the manufacturer. ■



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Electronics: Worth The Trouble?

"The electric lock market in 1979 was over \$80 million dollars. In 1983 these figures soared to a level in excess of \$100 million."

by Allan Colombo

For years locksmiths have installed, rekeyed, repaired, and improved locks. As a profession, locksmiths have acquired the trust and belief of those in society. Although the business of locksmithing can be profitable, current trends point to the locksmith's eventual entrance into the field of the electric lock.

It's true that there are still plenty of mechanical locks to be installed and repaired, but according to A.J. Hoffman, of Lori Lock, manufacturers are currently structuring their products and sales efforts toward the electric lock business. According to Mr. Hoffman, there may be 10 years remaining for locksmiths to gear up for

the electronic age ahead. During these next ten years locksmiths will need to become acquainted with all aspects of this lucrative field.

Is it worth the effort? You may be asking whether it's worth all the effort. The answer to this may lie in the dollar volume realized in the electric lock market, for in 1979 it was reported that well over \$80 million dollars worth of access control equipment and dealer services were rendered to consumers. In 1983 these figures soared to a level in excess of \$100 million dollars. The dollar figures have risen considerably since that time, making the field of electric locks both more interesting and profitable.

Through years of experience, the

locksmith's mechanical skills have been sharpened, enabling him or her to understand the fine intricacies of locks. Most locksmiths have learned the fine art of impressioning, picking, and masterkeying...very impressive achievements to be proud of. It's a fact these skills will follow throughout the many years to come, however, it's time to move on, to dig in and prepare for the future.

More than just trading dollars. Simple electric locking systems enable locksmiths to realize additional profits from both new and existing customers. For example, when called upon to rekey an office complex, it might be more advantageous for the office manager to pay more now by installing an



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electric locking system, thereby eliminating the continual need for rekeying the perimeter doors every time an employee is let go.

At face value, this may appear to be harmful to the locksmith; replacing the customary service call and rekeying charge with a one-time initial installation charge for the electric locking system. However, this is not at all the case. Electric locking systems require continual care. Preventative maintenance and repairs become necessary when breakdowns occur, providing additional revenues that will more than make up for any loss in rekeying dollars.

In light of the additional repairs that will inevitably become necessary in electric locking systems, it may appear to be more a matter of trading dollars than anything else. The electric lock eliminates service calls and rekeying charges, while the locksmith picks up service from the installation of these new systems.

You may now be asking, "Then what's the point of all this?" The answer to this lies in the growing demand and need for electric lock service. Both large and small companies alike are turning to electric locks, including hotels, hospitals, office buildings, and many others. Why, even homes are being equipped with electric locks, controlled by the telephones installed in the various areas of the home. Although the phone installer can install the telephones, he'll not likely be qualified to install the locking portion of the system, and that's where the locksmith comes in.

By teaming up with various trades, the locksmith can realize additional dollars that one time would have gone unnoticed. What at first view may seem like trading dollars, may soon come to be known as the locksmith's main source of income.

Devising electric lock applications. In eight out of ten commercial installations, the locksmiths could possibly devise an application for an electric lock. This provides plenty of opportunity for selling electric locking systems.

At first, most applications will involve simple electrically operated locking devices, enabling the locksmith to enter the field slowly and deliberately, learning the business in a progressive manner. The scope of these applications should fall in line with the locksmith's knowledge of basic electricity.

Although the entrance into more elaborate electronically controlled sys-

tems should always be in the back of the locksmith's mind, it is not necessary to enter the field of access control, installing a system controlling 100 doors in a corporate environment. Starting small, the locksmith will soon graduate to larger access controlled systems.

Let's take a quick look at several applications that serve to illustrate how electric locks can benefit those in residential and commercial environments. First we have the Mom and Pop grocery store, or any grocery store of any size. For years a key to the back delivery door was issued to anyone delivering products after hours. Every time a key was lost, the owner was forced to have the lock either replaced or rekeyed. The use of an electronic digital keypad, such as those discussed in The Elec-

tronic Lock Part I, (April 1989 issue of *The National Locksmith*) would enable the owner to eliminate the use of keys, greatly reducing the problem of rekeying or replacement of locks.

Or take for example, the stereo or computer retail outlet. Today such stores usually operate with only two clerks per outlet. This usually means only one clerk will be on duty at a time. When serving four or five customers in the store, it might be conceivable for a thief to enter the stockroom unnoticed. Out of the clerk's view, the thief will then be free to unlock the back door, removing stock from the store.

With the installation of an electric locking system, the clerk can now wait on customers, confident that the door to the stock room is locked at all times. No more keys to carry, or locks to



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July 71

inadvertently leave unlocked. Using a free egress button on the inside of the stock room, and a digital keypad mechanism on the showroom side of the door, the clerk can come-and-go by the press of the buttons.

Regulations and licensing requirements. "I'm afraid electric locks are too complicated for me, and besides, I'm not licensed for it."

This is an all too familiar quote from all too many locksmiths. Why are some locksmiths succeeding in the electric lock field, while others only talk about it? Those who have become successful have done so through hard work, and investigation of local and state regulations. Where they once allowed their fears of licensing to stop them cold, they set out to find the answers to what, if any, requirements stand between them and the additional income that electric locks can bring. As the locksmith will come to find, there's nothing at all to fear.

What licensing, if any, is required for the locksmith to enter the electric lock field? This question has prevented many a locksmith from expanding and diversifying. Are there state or local regulations that require the locksmith to

become licensed from the installation of electric locks?

To find the answer to these questions, I made an attempt to contact those in the marketplace who are already installing electric devices. In addition, manufacturers were contacted in an attempt to answer these questions. Where applicable, state licensing boards were contacted and the issue of licensing discussed, as it pertains to electric locks. The results seem to be in favor of the locksmith entering this new and growing field.

On the state level, what was found was a number of states that had licensing laws requiring the locksmith to obtain a license or permit from a state Contractor Licensing Registrar, or The Department of Consumer Affairs within the state in which they do business.

Many of these requirements center around the dollar amounts of the jobs accepted by the locksmith. One state, for instance, stipulates that if the locksmith accepts lock repair or installations over \$300, a license must be obtained. If the jobs accepted are under the \$300 figure, there's no need for the locksmith to obtain the license. Those who must, usually pay a filing fee, take

a test, and pay a license fee if they pass the test. In all of my research, and to the best of my knowledge, no state regulations for special licensing exists that centers around the installation of electric locks.

On the local level, this is not always the case. There are times when a locality will require an Electrical Contractor's License. However, since most electric lock devices are considered low voltage, most county and city licensing departments do not require the locksmith to obtain this license. According to Bob Cook, president of Securitron Magnalock Corp., the usual access control application requires low voltage, and that usually means the locksmith merely plugs in a transformer and runs a low voltage wire.

Most of the equipment sold to the locksmith today comes equipped with a plug-in transformer. If the locksmith can find an unused receptacle, from here a low voltage wire is run to the electric locking system, eliminating the need for high voltage wiring. Bob suggests that when high voltage wiring is necessary, the locksmith turn to the licensed electrical contractor for the job. Let him make his little bit of money, and the locksmith make his. ■



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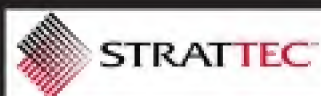
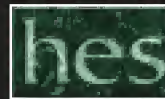
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STOPPERS



The National Locksmith magazine would like to welcome you to this year's ALOA show whether or not you are attending in person. In this section of Showstoppers you will find products, many of them brand new, to be exhibited this month in Atlanta.

Along with a photograph of each item is a brief description and a Rapid Reply number. If you are with us in Atlanta, please stop by the booths of those manufacturers who interest you. If you are not making it to the show,

circle the appropriate Rapid Reply numbers on the Rapid Reply card in the rear of this magazine. That way you'll still get information about these products.

Of course, not everything to be exhibited at the show would fit here, so be aware there's a lot more to see. To the best of our knowledge, the booth numbers on page 114 are accurate. However, some of them may change after we've gone to press.

**This year, come visit the staff of
The National Locksmith magazine at Booth 812 and 814!**

Aable's New Breaker Kit

Aable Locksmiths offer a new breaker kit for tubular locks and cylinders. This kit is unique, as it attacks the center core. Once the core is free from its housing, it will turn, opening the lock.

On some locks you need only insert the breaker tool into the keyway, apply slight turning pressure to the open position, and the lock will open with no drilling needed. On other locks you will use both tools and the standard 5/16 drill bit, which is included.



Circle 253 on Rapid Reply

Abloy Available From Fortress

Fortress Safe & Lock carries a large supply of Abloy Disklock products from mortise cylinders to switch locks. They also carry Abloy's new 2700 key lockable thumbturn. The 2700 series tubular deadbolts incorporate the security features of a double cylinder with the exit safety features of a cylinder/thumbturn lock. They achieve convenience without compromising security.



Circle 252 on Rapid Reply

Acorn's Colonial Gate Hardware

Acron Manufacturing Co., Inc. manufacturer of colonial forged iron hardware and accessories announces a new line of gate hardware.

Available in the uneven surface of rough iron as well as the early American smooth iron, the gate hardware collection includes cane bolts, both pintle and dummy strap hinges, and gate bolts and latches with plain and thumb latch pulls.

Gate hardware is only a small part of Acorn's selection of authentically reproduced forged iron hardware and accessories.

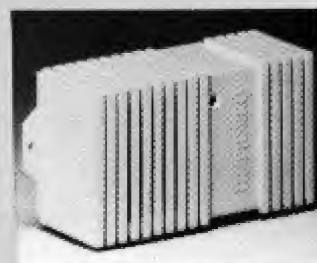


Circle 254 on Rapid Reply

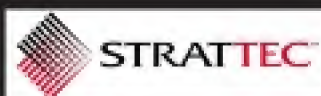
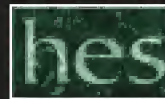
A.D.D.M. Int'l.'s Gas Alarms

Pama gas alarms available from A.D.D.M. International, are a profitable addition to the locksmith industry, since, from time to time there are either explosions due to gas or deaths due to carbon monoxide poisoning. The first professionals the public thinks of when it comes to security are their neighborhood locksmiths.

The units are available in two models: GHD 2000 for propane, butane and natural gas, which are calibrated to sound an alarm between 1500-2000ppm (10% of the LEL).



Circle 255 on Rapid Reply



Adesco Introduces Upright Safe

Adesco Safe Co. introduces a product that provides features important to condominium owners, apartment dwellers and elderly homeowners. The CMP4290 composite upright safe gives above floor accessibility, and provides good burglar protection with enough weight to deter determined home rip-off artists.

It's constructed of an inner and outer shell of heavy 14 gauge steel and filled with 2" of high density concrete.



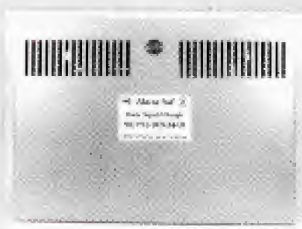
Alarm Lock's Exit Alarms

Alarm Lock Systems, Inc. has introduced a new line of electronic emergency exit alarm locks. Their new models 250, 260, 700 and 710 feature both a deadbolt, for maximum security, and a positive locking deadlatch, for full panic device protection, in a sleek design. These new models, available in aluminum or durondic finishes, offer a blaring dual piezo sounder, a durable die cast cover, low battery alert, 9-volt battery and selectable 2-minute alarm or constant alarm.



Alarm-Saf's Power Supply

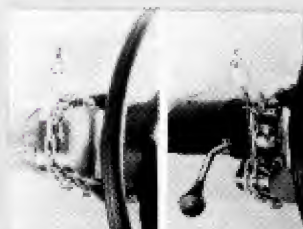
Alarm-Saf models AS/PS5-BFS-12-UL and AS/PS5-BFS-24-UL Power Supply/Charger are 4 amp output, 12 or 24 vdc output models. The units charge lead, acid or gell type batteries up to 38 AH capacity with fault output indication, short circuit and over-temperature protection. There is fault output on blown battery fuse, blown AC fuse, loss of AC, low AC and low battery, with a transformer mounted in a lockable cabinet (15"W x 11"H x 4"D). Lifetime Warranty on PC Board.



J. Allen Auto's 'Log Chain' Lock

The J. Allen Auto Security Lock Company, has released the new series "Log Chain" ignition lock. The lock, made of case hardened, heavy steel, with a 20,000 pound-tested chain and Master steel laminated lock is used to secure the car's ignition. The lock fits all cars that have the ignition lock on the steering column.

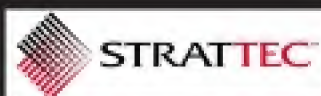
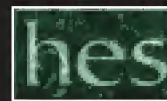
Mr. Allen, President of the company, stated that "With this lock in place the car cannot be started, shifted or steered and the lock cannot be broken or hack-sawed off."



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Armadillo Safes Relocates Factory

Armadillo Safes, has recently moved into a new larger factory. This new building will enable Armadillo safes to maintain their fast delivery.

Armadillo safes is dedicated to manufacturing only a high quality safe line, which would give their safe dealer network a product that offers the end user a more security and a trouble free high quality product.

They have also come out with a new safe line which is value priced. The Duke Safe line is manufactured under the same high quality standards as the Armadillo Safe and comes in three sizes.

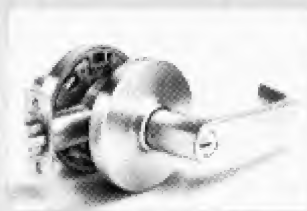


Circle 277 on Rapid Reply

Arrow's New Sierra Lock

Arrow, is expanding its product offering to include the new Sierra design key-in-lever heavy duty cylindrical lock. This new lever complements Arrow's existing knob designs.

The new key-in-lever design is especially appropriate for both new and retrofit applications, the latter to update existing buildings to meet today's accessibility, fire and security codes. It meets ANSI Grade 1 specifications and is UL listed for A label fire doors.



Circle 276 on Rapid Reply

Assa Reduces Padlock Prices

Due to breakthroughs in production techniques at the factory, Assa is now able to substantially reduce its prices for padlocks—an average of 50%.

Three sizes are available: The number 2 padlock is chrome-plated brass with a hardened shackle in two different lengths. Both the number 3 and 5 padlocks are case-hardened steel in body and shackle, with a special hard nickel finish. Hasps are available for use with each size.



Circle 275 on Rapid Reply

Auto Security Products' Keying Kit

Auto-Security Products introduces keying kit no., A-42-104 which includes tumblers and springs for these locks, along with dust cover and shutter assemblies and five different styles of face caps. All parts in the kit are also available individually along with uncoded door lock plugs and plastic tailpieces as used on door locks.



Circle 274 on Rapid Reply

B & S Promotes Kit and Kaboodle

At this year's ALOA convention, Briggs & Stratton will be promoting its "Kit and Kaboodle Special Offer." Locksmiths will receive a free GM Service Cap Kit or GM Key Cover Kit by purchasing three selected service kits.

Receive complete details of this offer at Briggs & Stratton's ALOA Booth, or contact any authorized Briggs & Stratton distributor.



Circle 257 on Rapid Reply

Brainerd's Solid Brass Hardware

Brainerd Brass Hardware is made in America and priced to sell. Their entire line of quality hardware ranges from home security products, such as door viewers, door and window locks, bolts and chains to decorative home and hobby specialties.

With more than 700 products in their line, Brainerd continues to grow, placing special emphasis on research and development of new products, and on improved methods, modern equipment, quality control and advanced packaging concepts.



Circle 272 on Rapid Reply

Brookfield's New J-U-3 Hinge Kit

Brookfield Industries offers the J-U-3 as an alternative to the J-U-5, maintaining the same features. These include height adjustment, load carrying capacities, mounting hole dimensions, installation hardware, and one man installation door hinge systems.

Your kit contains: two hinges, 12 aluminum expanders, 12 steel fasteners, four security strips, one expanding tool, and one instruction sheet.

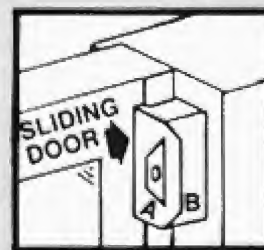


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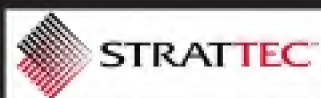
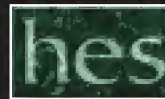
C & M Tool's Sliding Door Device

A new concept in sliding glass door security is available from C & M Tool of Fremont, CA. This simple unit is effective, inconspicuous and inexpensive.

Made of fourteen-gauge steel construction this device protects the door from being lifted from the track, even if the glass is broken. It can be secured with an S-hook and has concealed mounting screws, making it tamper-proof.



Circle 256 on Rapid Reply



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CCL Introduces Olymp-1 Keying Kit

The new Olymp-1 keying kit from CCL Security Products is ideal for the professional on the go. It is a complete re-keying package for CCL "4R" and "B4R" type bitting that requires .095 diameter cylinder pins. It also includes .101 diameter cylinder pins for the Olympus D4219 keyway.

Each kit contains 100 bottom pins each in sizes 0-9 for the B4R type and D4219 keyway and size 0-8 for the 4R type. There are 100 master pins in size 2-9 for both the 4R and B4R type and sizes 2-7 for the D4219 keyway.



Code-Alarm's Micro-Vision

Code-Alarm, Inc. (NASDAQ: "CODL") announces Micro-Vision, a new, radar-controlled, surveillance unit. It instantly detects an intrusion, within a protected area, by radar frequency change. As an optional, new accessory, it is compatible with all of Code Alarm's current line of vehicle security products.

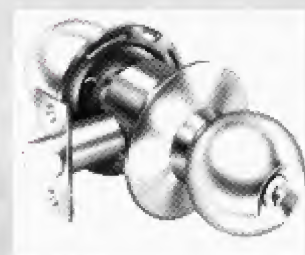
With Micro-Vision, any motion, within a specified area, is detected and will trigger an alarm without any physical contact.



Corbin's 6600 Cylindrical Locksets

Standard duty cylindrical locksets have rugged stainless steel trim and reinforced knobs for longer life. An adjustable latch bolt for flat or beveled doors is also featured. They are available in a wide spectrum of architectural finishes.

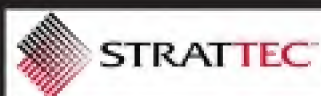
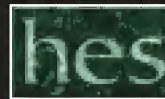
All steel internal working parts are zinc and dichromate plated for longer life. The 6600 series conforms to ANSI 156.2 - 1983 grade 2 requirements and ANSI A115.2



Corkey Control's Magnetic System

Corkey Control Systems can provide a magnetic key control system that operates on mechanical locksets using their magnetically coded lock cylinders. These adapt to standard door hardware without any modification to existing locks and provide access control without the use of electricity.

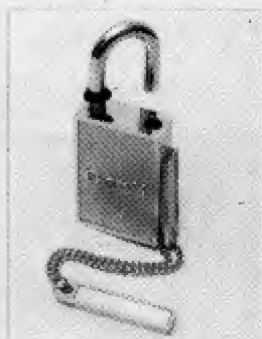
This product and its quick change capabilities has been used in hotels, office and industrial buildings, parking systems, etc. The encoding and re-keying equipment will allow you to have complete control of the system.



Mark Daniel's Pick-Proof Lock

The magnetic lock available from Mark Daniels Trading Co., is unpickable and virtually unbreakable. This lock has no keyhole to be tampered with or opening to be picked like conventional locks.

To open the lock, just place the key bar in recess at the side of the lock and pull out the shackle. Magnetic lock is self-locking. Two magnetic impulse keys come with each lock. It is water, shock and dust resistant for years of dependable protection.



Detec Security Inc. "Door Attendant"

The "Door Attendant" is a simple to install, low cost, easy to use, high quality electronic chime designed to announce the entry of clients or customers, with a pleasant electronic chime. The "Door Attendant" has a patented design for low battery consumption and was designed to activate only one time when the door is opened and does not activate when the door closes.

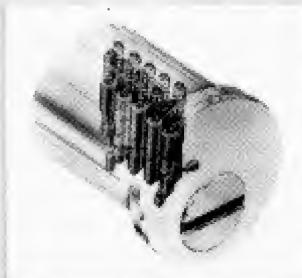


Dom Security Locks' ix 10 KG

Dom Security Locks offers a new dimension in locking technology—system Dom ix 10 KG. Featuring a horizontal keyway, the system also utilizes a key with a broad straight-lined shaft with similar dimples on each side... making the key reversible.

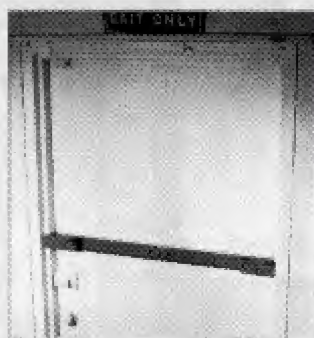
A unique feature of the system includes one floating ball which is integrated in the key. No locking is possible without this ball.

Nine pin tumblers are operated by the dimples in the key. The pin tumblers are virtually pick-proof.



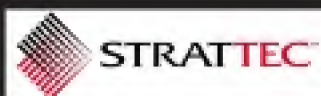
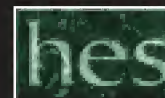
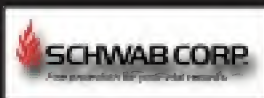
Door Lock Co.'s Secur-A-Door Lock

The Door Lock Co., Inc. offers the Secur-A-Door Lock. Most exterior metal passage doors need additional locking hardware. To meet this need, 2 x 4's with brackets or a metal bar are currently used. With the Secur-A-Door Lock, a unit is permanently affixed to the door eliminating the need to remove and replace the cross bar every time the door is opened (unlocked) and closed (relocked). The unit also adds additional strength to doors.



*Choose S&G
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electronic safe
locks for...
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Dugmore & Duncan Stocks Sargent

Dugmore & Duncan has secured a complete selection of the new Sargent "10 Line." The "10 Line" is available for immediate delivery in all finishes and keyways.

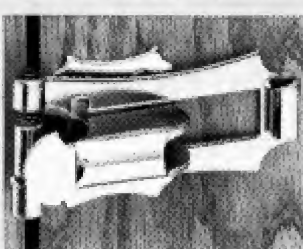
Recently several states adopted legislation requiring door levers to provide easy entrance and exit for handicapped individuals. To satisfy this legislation, some manufacturers developed products and rushed them into the marketplace. The results included sagging levers, difficult cylinder removal, complicated retrofits, limited keyways and other assorted problems.



Watchguard™ From Dynasecurity

Watchguard from Dynasecurity is a new addition to the home security market. In the open/inter-view position, watchguard resists over five times the impact force conventional chain and bar locks will resist, making it far stronger and safer.

Watchguard is secured to the door jamb with four tamperproof screws, whereas bar or chain locks simply attach to frame face moldings. A unique cam open/close hinge allows the door to be opened to approximately one inch one time, then shut into an automatic secured deadbolt position.



E.S.D.'s Plastic Headed Keys

E.S.D. introduces a new plastic grip for their CAM III keys at no additional charge.

The new key head provides non-slip value, firm grip, as well as additional durability. Retrofits for existing ESD CAM III keys are available at a minimal cost.

ESD manufactures products for laundry and vending, including coin slides, money boxes and high security locks under the E.S.D. name. They also distribute brand name special application locks to the same industries.



Esmet, Inc.'s Free Bulletin

Esmet, Inc., has produced a new, four-page bulletin highlighting its unique Tufloc® line of high-security weapons-storage racks and locking devices.

In addition to model descriptions, rack capacity, types of finishes, and keying options, the publication also lists specifications and applications of its handgun and long-weapon racks.

A separate section features the Tufloc high-security hinged-padlock.



NATIONAL

AUTO LOCK SERVICE, INC.

National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder

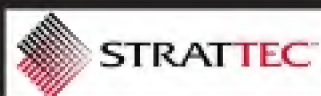
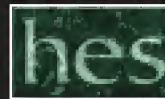
programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.

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**Integrity.
Ingenuity....
security solutions.**



Fichet Defender Composite Safes

The Defender composite safes are the perfect answer to the need for high-security composite safes at a reasonable price. They are constructed with a high-density material sandwiched between two steel plates, providing excellent protection against burglary attacks, and they offer two-hour fire protection up to 1700° F. The door is 2 3/4" thick and features a 1 1/4" thick defense barrier.



Gamiol's Bicycle Safe

A new, patented Bicycle Safe™ that attaches snugly around the frame and pump to store tools, keys, and other personal items is being introduced by The Gamiol Corporation of Washington, D.C.

The Bicycle Safe™ is a two-piece assembly featuring a rugged, patented, rotary locking mechanism. It can be attached and removed without tools and fits all standard 1 1/2" and 1" frames.



GDI Automatic's Garage Guard

GDI Automatic Dead Bolts offers a new lock developed for use with garage door openers installed on sectional ("roll-up") doors. The lock, called the Garage Guard™ is easily added to the existing automatic opener and door. It provides dead-bolt security for the garage door without sacrificing the convenience of the automatic opener.

The Garage Guard was developed at the suggestion of crime prevention police officers, who stress that an automatic opener does not provide adequate security for the garage door.

General Tool's Quiet Doorman

The Quiet Doorman panic bar retainer from General Tool & Die Company, Inc. is a substitute dogging device that is designed to reduce panic bar repair and replacement costs. Simply depress the crossbar and place the hook over it to eliminate the wear and tear on the dogging mechanism.

The Quiet Doorman is a cost effective solution to maintenance problems caused by improperly dogging down only one end of the crossbar. Never again will your panic bar hardware rattle back to the locked position as the door is opened and closed.



Gil Ray Designs New Cutter

Gil-Ray Tools of Bay City, Michigan, best known for their mail-in cutter sharpening service, has recently added the heavy duty GR #9MC to their line of premium quality replacement cutters. The GR#9MC is a direct replacement for all machines that use #9 MC cutters including Ilco Automatic and semi-automatic key machines.

The cutter features 100 precision ground teeth, and is made from premium high speed steel.



Harrison's Glass Breakage Detector

Since 1971 Harrison Electronics has manufactured a completely integrated component line of heavy duty vehicle alarms and anti-theft accessories, including the 7855 Glass Breakage Detector (GBD).

Harrison's GBD is extremely sensitive to breaking and entering sounds. The miniature remote microphone with LED indicator detects high frequency sounds, triggering the alarm at the sound of metal on glass, a blow to the window, or breaking glass.



Hayman Safe's Floor Safe Line

Hayman Safe Co. will introduce at the ALOA convention their newly designed floor safe line, utilizing a smoother operating 3 bolt system with large 3/4" round bolts and an improved relock system.

The safes will continue to feature the patented lift-off door hinge system which allows for door removal from the body without tools.

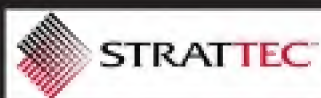
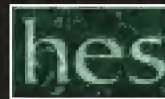
Hayman Safe Co. has also expanded their forced entry guarantee to cover their complete standard line of safes.

HPC's New 9170 Series

The new 9170 Series key duplicating machine from HPC has all of the design features of the 9160MC except it is operated by a lever. This design allows the carriage to move smoothly with the use of one hand when cutting the keys.

The 9170MC is designed to cut large head keys (such as hotel keys) and has reversible jaws for cutting double-sided keys (such as foreign automotive or cash register keys).





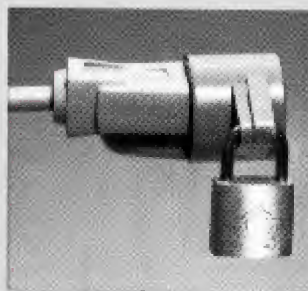
Installation Tools The Professionals Choice

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In-Concepts Plug Lock

In-Concepts, Inc. has introduced a new, low-cost device that will cut unauthorized, after hours access to business copier machines, computers and other small office equipment.

Lok-Out™, an injection-molded plug lock made of high impact plastic and a 3/4" brass-bodied padlock, attaches to all standard two and three prong electrical cords. When installed, the lock physically prevents office machines from being plugged into any electrical outlet.



Indiana Cash Drawer's Line

Locksmiths have discovered that selling cash drawers to their business customers is a profitable extension of their business. The Indiana Cash Drawer Company has a broad selection of manually-activated cash drawers featuring steel or hardwood construction, designed for over- or under-counter installation.

Also available are computer-compatible electronically-activated cash drawers.



ASP Covers the World of Auto Locks

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Intelligent Controls' Door Manager

Intelligent Controls Inc. is pleased to announce the marketing of the 870sx Door Manager™, a stand-alone, smart electronic door security system which utilizes BarKey® access cards, microprocessor technology, and the latest in software. The unit comes complete with 25 BarKey® access cards (more available upon request, without waiting), a separate power supply with back box, and the 870sx reader with back box.

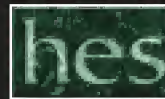


Iseo Lock's Barrier Bar

Iseo Lock's high security barrier bar lock has all steel parts which are chrome-plated to resist corrosion and to provide smoothness of operation.

The Perfecta Bar secures doors and at the same time retains their good looks. Features include: an interchangeable cylinder, an interchangeable aluminum cover, and bars that are available for 30"-36" or 36"-42" doors.





The Ultimate From J&B Key-Rite

The Ultimate model JB350 is the newest product for the locksmith from J&B Key-Rite. It is an electronic LED readout micrometer to which has been added a special aluminum base, split brass anvil, and a special tip. It can be used for measuring pin depths in cylinders, making re-pinning much faster and easier.

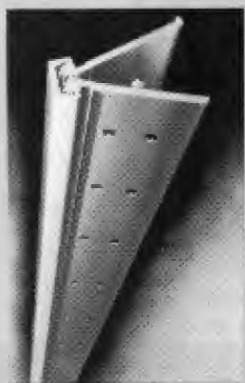
The split anvil makes reading Ford and other double-sided keys more accurate because they are seated securely in the split.



JLM Stocks Roton Hinges

Full-surface Roton replacement hinges are available from JLM Wholesale, Inc. These hinges can be used with doors of almost any material or thickness.

The model 780-210 standard or heavy-duty full surface hinges install in minutes to rehabilitate a misaligned, binding entrance. On singles or pairs, replacement cylinders restore extra clearance to the latch side of distorted frames.



Kent-Moore's Auto Catalog

A new updated catalog containing automotive locksmith tools is now available from Kent-Moore Automotive Division.

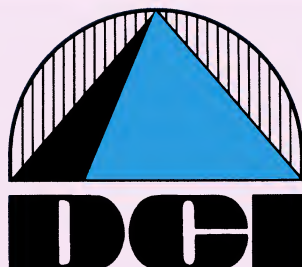
The materials in this new 12 page catalog were developed by automotive locksmith experts for dealer technicians as well as locksmith professionals. This catalog will provide up-to-date tools and latest technologies for today's automobiles.

Keydex's Portable Key Organizer

Key Organizer is a portable key file and control that really works. Keys are held in secure, coded compartments. Credit-card sized inserts accept typewritten, ballpoint or marker identification.

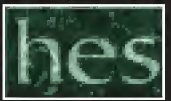
Inserts remove easily for carrying in wallet or purse so identification always stays with the key. A master index provides access to any key at a glance and ensures its return.

It comes in handsome brown leatherette with gold stamping.



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Quality, Value,
& Service.***

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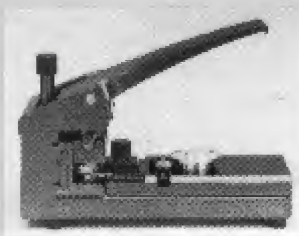


Keymak Releases KeyMaster Machine

Keymak announces the release of the KeyMaster, a new code machine.

Recognizable as a Keymak product by its unique handle design, the new KeyMaster still rings true with the familiar KaChunk. By having one base machine and interchangeable punches and dies, you can cut various keys on one code machine.

Requiring no electricity, this machine is truly portable. Easy to use in your shop, service truck, or even right at the lock being serviced, it will satisfy your code key needs.

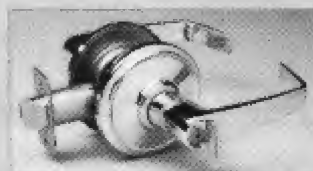


Kwikset's Keyed Lever Locksets

For the first time since it began marketing lever locksets in 1969, Kwikset is coming out with a new leverset design, a keyed entry model.

Kwikset's new keyed leverset in the Winston design is U.L.-listed and is made for single- and multi-family residential and commercial use. It also meets most standard code requirements for handicapped persons in public areas.

Among the Winston leverset's major features are a special key that permits instant removal of the cylinder for rekeying without removing the lock from the door.



Lindustries Glowing Lever Handle

Visible for several hours after absorbing natural or artificial light, the Leveron Hi-Glow provides visual assistance to find doors when lights are extinguished or power fails. The Hi-Glow from Lindustries, Inc. is particularly beneficial when mounted on doorknobs in windowless areas that must rely on constant electric lighting such as restrooms, stairwells and inside corridors.

At home, young children, elderly, guests, and those with impaired vision can find Hi-Glow reassuring and helpful in finding doors at night or immediately after a power outage.



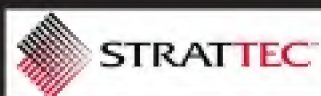
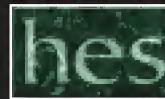
Locks & Keys Offers Speedypik™

The new Speedypik, invented by William J. Cimino, president, of Locks & Keys and Robert E. Powers Jr., co-inventor, allows keycutters to readily identify customers key sectionals in order to duplicate them. The customer's key is simply inserted into the key holder, scanned by the computerized identification system and matched to one of the hundreds of sectionals stored in computer memory. In seconds the name of the required key blank is displayed on a computer monitor screen.



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Lori Develops New Cylinders

Lori Lock has developed a new line of 1505 cylinders, for the Kwikset 500 Series Key-In-Lever Lockset. It offers a practical solution to end users in states enforcing handicap codes. Lori Lock is introducing a complimentary family of cylinders in 3 keyways: Schlage P (C-L), Russwin D1 and Corbin 60, to provide alternative security solutions for end users.

The 1505 cylinder is available in US3, US5 and US26D finishes. It is drilled six pin, pinned five and furnished standard with two change keys and one control key.

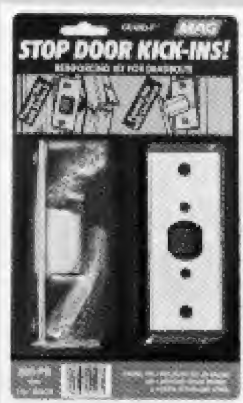


Circle 210 on Rapid Reply

M.A.G. Eng.'s Reinforcing Kit

M.A.G.'s new Guard-It reinforcing kit has been developed to provide door and frame reinforcement for new or existing dead-bolt installations. This kit is a combination of the Uni-Force door edge guard and Strike-3 high security strike.

Both items are combined on one card which incorporates new full-color P.O.P. graphics created to increase impulse sales.



Circle 218 on Rapid Reply

Master/Dexter Engraved Knife

Dexter by Master Lock, celebrating its eightieth anniversary, is offering locksmiths a specially engraved, limited-edition commemorative knife, according to Bob Weis, director of marketing.

This Gerber Collector's Edition sporting knife has been specially engraved in commemoration of Dexter's eightieth year. Locksmiths will receive a free, precision-crafted Gerber knife with every \$400 Master/Dexter order placed that includes 25 percent Dexter products.

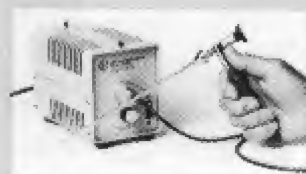


Circle 219 on Rapid Reply

MDS Adds Illuminator

Medical Diagnostic Services, Inc. announces the addition of a low cost, 30 watt halogen fiberoptic illuminator to compliment their already popular Focuscope™ system.

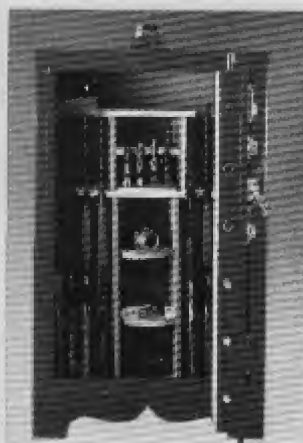
According to the manufacturer, this illuminator will provide approximately 40% more light when used in conjunction with their new fiber-probes.



Circle 220 on Rapid Reply

National Security Safe's Magnum

The new Magnum S gun safe from National Security Safe, features even thicker walls and two independent locking systems, each with a Group One manipulation-proof lock—standard. And it incorporates all of the other standard features that are found on Magnum safes.



Circle 204 on Rapid Reply

Numberall's Numbering Head

Numberall Stamp & Tool Co. Inc., offers an economical hand held numbering head. The Model 60 is ideal for stamping keys, brass tags, part numbers, identification codes and many other products.

Because of the simplified construction, the Model 60, a multi-wheel numbering head, need not be priced out of your budget. The Model 60 is easily hit with a hammer, making a perfect impression. The wheels are locked in position with a pin, which seats in a taper in the frame.



Circle 209 on Rapid Reply

Pacific Scientific's Redi-Line

The Redi-Line electric generator from Pacific Scientific converts 12 volt DC from a fleet vehicle's battery system to easy-access true sine wave AC power. Models are available to 15 amps to run even the larger tools and lighting systems.

Redi-Line operates "on demand," eliminating unnecessary DC current draw when tools are not in use. Rugged construction and maintenance free design make the Redi-Line a reliable power source for fleet operations.



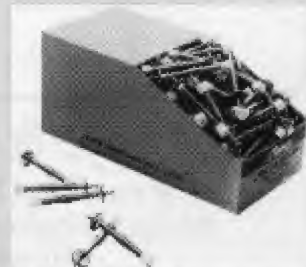
Circle 208 on Rapid Reply

S. Parker Offers Shelf-Bin Packs

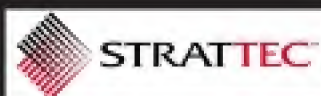
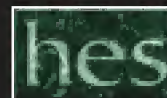
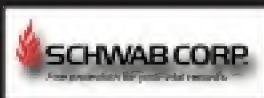
S. Parker Hardware is offering their 12 fastest moving items packed in polybags and shipped, in quantity, in sturdy shelf bins.

All the items are basics and sell on a continuous basis. They include magnetic catches, door stops, coat hooks, hand rail brackets, closet pole sockets, window sash locks and lifts.

S. Parker's new 98-page catalog provides all the details on these and other bin-packed products as well as all their builders' hardware and consumer-directed hardware.



Circle 207 on Rapid Reply



Perma-Vault Offers Rotary Hopper Safes

Perma-Vault introduces, new rotary depository hopper safes, to add to their product line of affordable cash protection system models. These units can be placed in a convenient location in your vehicle, office or store where cash, checks or receipts are handled.

Safes are equipped with choice of Sargent & Greenleaf UL approved combination lock or Sargent & Greenleaf dual safe deposit lock. Large capacity hopper opening (2½" x 5¾" x 10½") for deposit of most money bags or envelopes without unlocking.



PMS Products' Boeshield T-9

Boeing's aviation engineers have developed Boeshield T-9, a new penetrating lubricant. This is being marketed to the retail field by PMS Products.

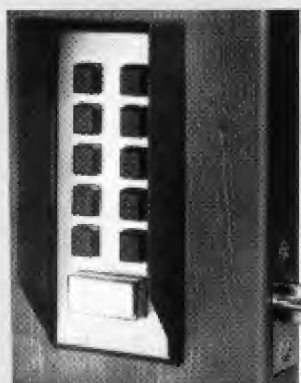
It is a combination of 13 solvents, oils, and wax that remains as a barrier film after other components have done their job and evaporated. It dissolves minor corrosion, displaces moisture and works into pores and minor stress fractures long after application.



Lock Shield For Preso-Matic Locks

Preso-Matic now offers a lock shield for use in high security areas to prevent un-authorized persons from viewing the lock face while pressing the pushbutton combination numbers to unlock the door from the outside.

Required for use in high security government areas, and by defense government contractors, the lock shield is held firmly in place by the lock body. No screws, are needed.



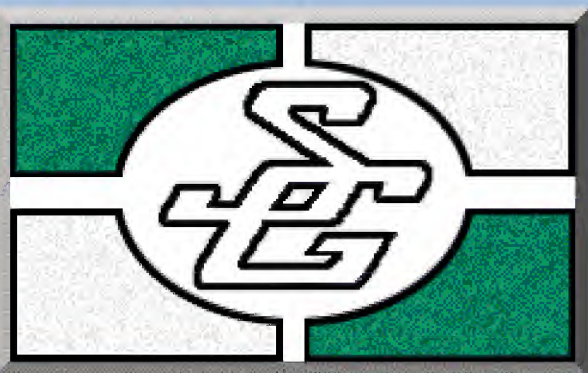
R & D Tool's Side-Bar Picksets

The General Motors side-bar lock has always been considered one of the most pick resistant locks. The R & D Tool Company has taken the challenge of picking and decoding this lock quite seriously. The patented GM sidebar pickset is a professional technique that locksmiths can use with dependability to pick and decode this lock.



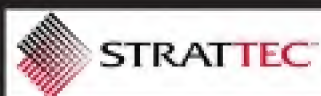
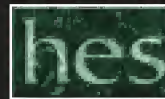
ASP - Your Auto Service Center for the World

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Make Sargent & Greenleaf's Comptronic locks your choice for electronic safe locking solutions.

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SCHWAB CORP.

Fire protection for your vital records.

*It's not safe
unless it's
Schwab Safe.*

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R & S Accessories' "Tailgate Keeper"

R & S Accessories, Inc., is offering for the first time the "Tailgate Keeper," a unique concept in tailgate protection for GM and Ford pickup trucks.

It is easy to install, because there are no holes to drill. The keeper doesn't effect tailgate operation and the tailgate can still be removed with a security tool.

Radio Shack's Cellular Phone

The CT-100 cellular phone from Radio Shack is an affordable, full-featured mobile phone. Features include a back lighted 16-digit LCD display, 98-number memory, full duplex hands free amplifier and last number redial.

A cellular telephone is an important security device because you will never have to drive "alone" again. If help is needed, you just call. It also lets you manage your time better.



Reed's New Exit Devices

Reed Exit Hardware has introduced its 4000 Series, a new line of economical flat bar exit devices designed for light commercial applications.

The Grade 1, 4000 Series includes a full line of rim and surface vertical rod devices. Special features include: removable, rust-resistant case cover to permit easy maintenance and inspection; a versatile design which allows the hand to be reversed in the field, and a variety of trim for both the inactive and operating doors, including rim cylinders.

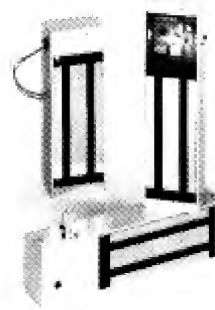


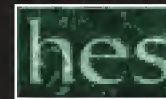
Reliable Security's New doorMAG®

Reliable Security Systems has added a new magnetic lock, doorMAG® 2001.

The new lock has a holding force of 1200 pounds and an extended wiring cavity containing a wiring terminal block and field selectable voltage of either 12V or 24V.

2001 will enable installers and distributors to carry one lock that has a unique mounting plate, AC/DC rectifier, 12V or 24V selectability, internal wiring connections, and all standard options.





Rixson's New Floor Closer

Concealed Heritage 5000 Series floor closers that fit in concrete slabs as shallow as 2" thick have been introduced by Rixson-Firemark. The new product has been added to the Rixson line of floor closers to answer customer demand for a high-quality floor closer for use in shallow-depth floors, according to the manufacturer.

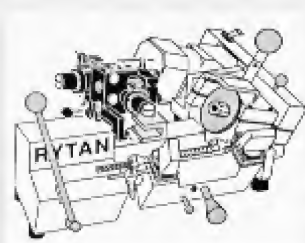
Available for use on single or double-acting doors, the shallow-depth Heritage 5000 Series meets the requirements of most existing hand-capped codes.



Rytan's RY256CD Code Duplicator

Rytan's model RY256CD offers high speed key duplicating combined with precise key code cutting without having to change cutters or a stylus. This machine can do everything the RY100CD can do, plus duplicate or cut Medeco by code without ever changing cutters.

Hundreds of additional codes are all standard with your code duplicator, plus styles of cutter shapes are available. Conversion kits are also available.



Door Closer Tools From S & S Tool

S & S Tool & Die Company, Inc. is stocked and ready for shipment of Corbin, Dor-O-Matic, Dorma, Jackson, Kawneer, LCN, Lockwood, Norton, Rixson, Russwin, Sargent, Yale and others. These are available in surface mount and floorcheck.

Save valuable time and avoid damage, by working with tools designed for those special jobs.



Safeman Supply Stocks Black Bart

The Black Bart drill rig is available from Safeman Supply of Vancouver, WA. This unit features a custom slotted tip for quick chain disconnect, a black oxide finish for durability, and an MX foam grip for a great feel.

Black Bart works with almost any drill motor, and comes with a 24" chain.



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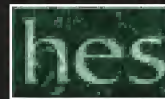
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Saf-T-Box's Lock Box

The Saf-T-Box is a $\frac{3}{8}$ " steel lock-box used to provide security for patrons or guests of an establishment.

The customer key and the attendant are both required to unlock the lock box door. Each safe deposit box has a removable steel bond box.

The convenience allows for daily or weekly rental in addition to traditional uses and rental periods.



Poxylube CP-200 From Sandstrom

Poxylube CP-200 Dry Film Lock Lubricant keeps things moving in your locks. It provides lubrication through the use of PTFE technology, containing no graphite. It's colorless, dries fast, and won't run off. CP-200 is also clean and won't cause rust.

It comes in an easy-to-apply aerosol can, with a stainless steel needle available to spray those tiny hard-to-reach areas that the standard plastic spray tube doesn't reach.



Securitech's Automatic Locksets

Securitech will demonstrate its new line of automatic deadbolt locksets at the ALOA convention. These locksets automatically deadbolt the door each and every time it closes.

Securitech's Auto-Bolt series ensures that the door is locked without forcing someone to use a key to throw the deadbolt. The locking function is completely mechanical and easy to install.

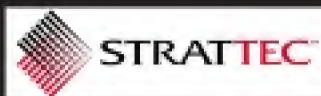
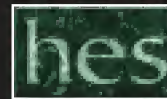


Securitron's BPS Power Supplies

Securitron manufactures a comprehensive line of regulated power supplies for all your current needs. All twelve models available in the BPS series are factory assembled and ready to install.

Models are available in 12 or 24 VDC, in 1-15 amp outputs. An integral battery charging system at 20 A.H. is shared by all units. (Batteries ordered separately). Units larger than 1 amp have eight individually fused outputs.





Sentinel's Medeco® Jumbo Cylinder

A new jumbo Medeco® cylinder for replacement of Russwin/Corbin master ring jumbo cylinders, available in regular or removable core styles and most keyways, has been introduced by Sentinel® Wholesale Hardware. Locksmiths will now be able to conveniently upgrade their customers existing master ring systems with the high security Medeco® and without having to resort to adapter rings.



Silver Sales Stocks Simplex

Silver Sales, Inc., is pleased to announce that it is now a full and complete stocking distributor for Simplex/Unican locks.

Already known for its complete line of S & G locks, Silver Sales is now also your one-stop source for Simplex/Unican locks and parts.

At Silver Sales you can always be assured of prompt, courteous and efficient service, and never a minimum charge.



Slide Lock's Z-Tool Update

By use of Crack 'N Peel paper, the Z-Tool manual from Slide Lock Tool is designed to hold two years of new instructions and illustrations as well as the page for current "vehicle index guide."

Some of the newest models include: Nissan's 240SX, 1990 300ZX, Plymouth Acclaim, Dodge Spirit and many other manufacturers newest models. See back of your Z-tool manual to order.



J.E. Smith's New Line

J.E. Smith Co. of Waterbury, Connecticut is now a distributor of the Arrow Lock and exit device line. Their large inventory enables them to fill orders for same-day shipping at very competitive prices. No minimum order is required and they will ship anywhere.

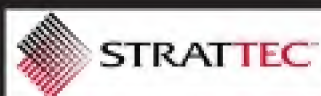
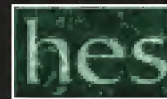
In addition to Arrow, J.E. Smith also carries Baldwin hardware and bath product, Russwin, Dexter and CCL lines.

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For more than 43 years Southern Lock and Supply Company has been serving the security industry providing customers with quality merchandise and the best service possible.

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Stanley Hardware Expands Brass Line

Stanley Hardware has expanded its line of solid brass home hardware to include door knockers, handrail brackets, floor doorstops and house numbers. Solid brass construction prevents rust and the polished brass finish is preserved through easy-to-care-for instructions.

The seven-inch solid brass door knockers are available in two styles: contemporary, featuring smooth, unobtrusive lines to blend with today's architectural designs, and a traditional roped style that complements more timeless designs.



Synergistics Protects Monkeys

Boston's famed Retina Foundation has added a second Synergistics card access system to protect its rat, rabbit and monkey laboratories, Joe Doherty, Director of Security there, purchased his first MICRO-PAC security system three years ago.

"Our scientists come and go at all hours of the day and night," says Mr. Doherty, "and metal keys just don't give the safety and control that we need." He purchased a four-door access control system from Synergistics, and protects his inner and outer vestibule doors and the upper and lower levels of his building.



Thug Bug Remote 3500

The TB-3500 from Thug Bug Auto Security Systems is a microprocessor controlled full-featured unit that is built in the USA.

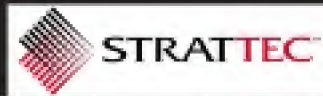
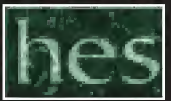
The TB-3500 comes equipped with the following items: Two transmitters, 120db siren, status LED, on board light flash relay, shock sensor (with LED adjustment), starter interrupt relay and harness, receiver module with molex connector that plugs directly into receiver unit for ease of installation, and emergency override button.



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Timetronic's Knight Stick

The Knight Stick from Timetronic's Technology is a wireless electronic alarm for sliding doors and windows. The unit secures against forced entry while offering a highly sensitive, audible alarm to alert occupants of a break-in attempt.

The Knight Stick is ideal for homeowners, tenants, singles, travelers, and campers. It is available in sizes to fit any aperture from 12" to 36".



Trine Product's New Strike

Trine Products announces the second generation electric strike. The new strike, marketed as the 1001-2, is unique.

Designed to fit narrow door jambs, this mortise strike features greater cavity depth, fewer moving parts, built-in terminal block, and heavy duty armature and components.

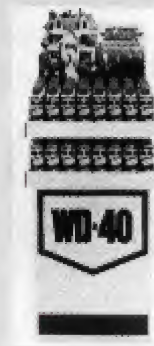
Cavity depth has been increased to 9/16" to accommodate the keeper length of 1-11/16", making the 1001-2 strike substantially stronger.



WD-40 Campaign Reaches Millions

This spring, two popular publications—Reader's Digest and Parade—unveiled WD-40's "Hidden Helper" sweepstakes. Also introduced this spring was a new WD-40 television spot, featuring product applications.

Another campaign is the "Play Ball with WD-40" promotion. With the special display they could receive a "You're a Winner" certificate qualifying them for prizes.



Weiser Lock Introduces Ebony

Weiser Lock introduces Ebony, the first in the Manhattan Collection™, a series of contemporary, designer door hardware introduced in 1988. Ebony is an expression of classic architectural taste in an up-to-the minute design.

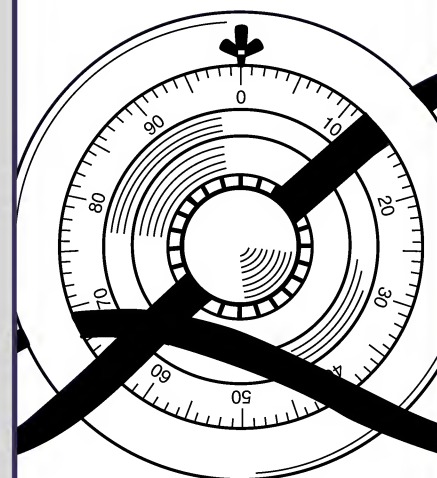
Using advanced plating technology, Weiser's nickel-plated Ebony finish turns Weiser locks into functional works of art. Ebony's metallic, mirrored finish polishes the appearance of any room they are used in. Weiser lock's oven baked enamel coating has passed BHMA requirements and provides durable lasting beauty.



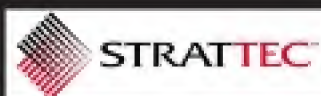
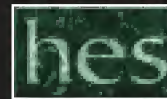
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Weslock Offers New Packaging

Weslock, a division of J.P. Industries, introduces the new Security Combo Pack, a combination door-knob and matching deadbolt in one package. These Weslock products have been packaged together to allow consumers an easier selection and the convenience of buying an entry lock and deadbolt together.

The Security Combo Pack includes one single- or double-cylinder high security deadbolt and one exterior door keylock for both locks.



West Coast Chain's Retractors

West Coast Chain Mfg. Co. manufacturers of Key-Bak Key Chain Reels, announce their Model 7LS retractors for industrial applications. Designed to be fastened to a flat surface, the large swivel on the end of the chain facilitates attaching items to be retracted. Industrial customers can now incorporate the retractor into their products for light duty requirements.

Various industrial applications such as retracting electronic cables, medical hoses, cabinet closures and/or small tools are now in use.



'Lectro Truck' by Woodward Mfg.

The Lectro Truck from Woodward Mfg. Sales Inc. is a portable, battery powered "hand truck" that climbs stairs, acts as a power tailgate, and is a dock leveler all in one.

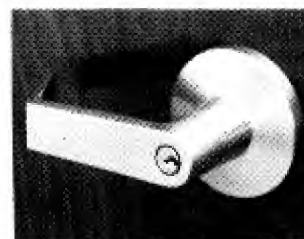
It moves safes up to 1500 pounds. No one is under the load so it is operated safely above the load with push-button ease. It allows one man to move 600 pounds or more up or down stairs and on or off vehicles easier and for far less cost.



Yale Introduces Cylindrical Lockset

Yale Security Inc. has introduced the AU 5400 Series, a heavy duty cylindrical key-in-lever lockset with the popular Augusta lever design.

This cylindrical version of the Augusta lever handles design is usually found only on mortise locks, and is also an excellent retrofit product for upgrading in order to meet handicap codes in doors pre-cut for cylindrical locks.



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July 7-9, 1989

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Able Locksmiths 1200
Abloy Security Locks 603-605

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Acme Security Systems 820
Action Security Products 323
Adams Rite Mfg. Co. 821, 823, 825

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Herbert L. Flake Co. 548

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MIWA Lock U.S.A. 822

Marks Hardware, Inc. 808-810
Marlee Electronics Corp. 1203
Master Lock/Dexter

Lock 621-623-625
Mauer GMBH 743
Medeco Security Locks 410

Meilink Safe Company 721-723-725
Monarch Hardware 228
Mul-T-Lock 232-234
National Cabinet Lock 306
The National Locksmith 812-814

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Weiser Lock 717
Wilson Safe Co. 816
Winkhaus-Vanguard 534

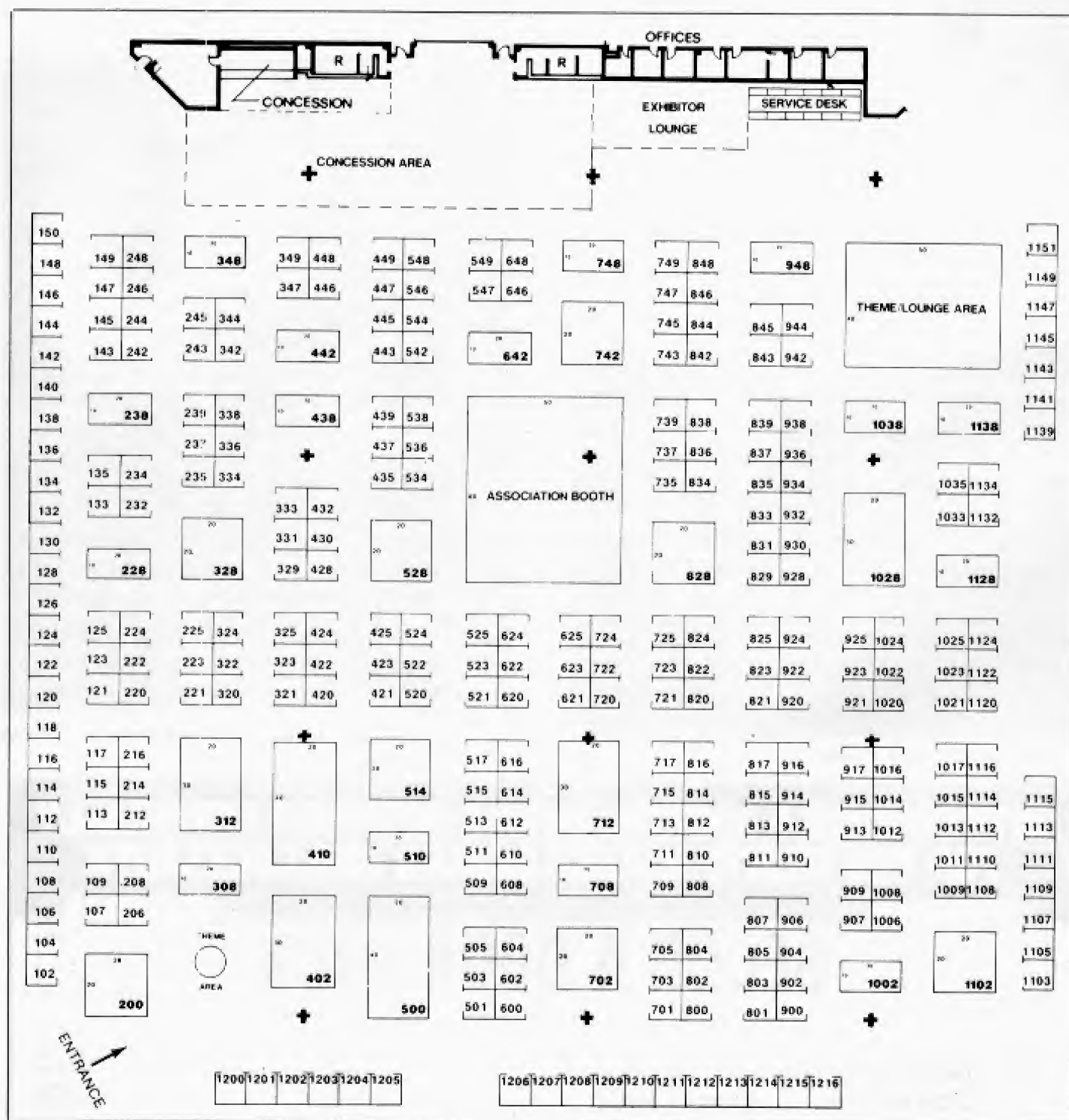
Woodward Mfg. & Sales Co. 646-648
Yale Security, Inc. 220-222

Booth Map

Exhibit Hours:

Friday, July 7, 1989
Saturday, July 8, 1989
Sunday, July 9, 1989

10 a.m. to 5 p.m.
10 a.m. to 5 p.m.
10 a.m. to 2 p.m.



Mazda's New MPV

"The code for this vehicle was found stamped into the rear of the passenger door lock pawl. I called *The National Locksmith's Code Hotline* for the code."

by Bob Sieveking

Mazda has introduced a new vehicle this year. The MPV or Multi Purpose Vehicle/van looks like most of the new import mini-vans. That's where the similarity ends. The MPV that I had the pleasure of working on was pretty fancy as vans go. Electric windows and locks added considerably to the convenience of operating the vehicle.



The new Mazda MPV.

There are also some interesting security improvements. Though I expected to find auxiliary locks that would make use of the valet function of the new 10 cut key, I found no internal locked storage that would benefit from a valet function. This vehicle has two door locks, a rear hatch lock and an ignition lock. I was surprised to find that the rear side door did not have an external lock.

Opening the Mazda MPV. The MPV has a short metal baffle at the rear of the roll-up windows to prevent the introduction of Slim Jims and coat hangers between the glass and the door weatherstrip. The security baffle guards the rear ten inches of the side glass, far enough to allow the introduction of a car opening tool if you're careful.

To open the MPV, use a short wedge to spread the glass away from the outer weatherstrip. You should be able to see the channel at the bottom of the glass that acts as a security baffle. Introduce the end of the tool into the door, and follow it down with the bend toward the front of the vehicle until the tip is below the pull handle mechanism. Turn the tool to the position shown in photograph one, with the "L" toward



1. Proper tool positioning to enter the door.

the rear of the vehicle. Note that the tool enters the door at the extreme rear of the glass. *Use a cloth between the tool and the window frame to prevent damage to the paint.*

With the "L" in this position, feel for the cylinder linkage and follow it down to the latch box. Photograph two shows the position of the tool on the locking arm. Push down to unlock the door. You will notice the button linkage to the right of the tool in the photograph. The button linkage can be pulled up to unlock the door, but is harder to manipulate because of the angle of the tool in the door.



2. Tool positioned on the locking arm.

The lock cylinders have "free" or "lost action" cams. The black box in the door below the latch, is the electric lock motor. The electric locks are integral to the latch mechanism. An interesting point here is that the electric locks are controlled by the driver's door lock. As the driver's door is locked or unlocked with the key, all other doors of the vehicle are locked or unlocked at the same time. Now that's a feature I need on my service van.

Making a first key by code. The code for this vehicle was found stamped into the rear of the passenger door lock pawl. To find the code does not require the complete disassembly of the door panel. If the trim panel is removed from the inside of the door, you will see a black rubber hole plug directly behind the lock cylinder. The plug allows access to the rear mounting bolt for the unit lock. It will also allow the locksmith to view the code on the rear of the lock pawl. The code in this case was "10716." A quick trip to the code library confirmed my suspicion that I didn't have records on this code series.

Thank goodness there are people in the world that make it a full time occupation to keep track of all the new codes as they come out. It saves us all a lot of time and worry about whether or not our code books are absolutely current. I have a very complete code library, but a few months ago I purchased a complete set of the new code books from *The National Locksmith*. Beautiful books, but the biggest benefit was the "Code Hotline." I called the Code Hotline, gave them my code book subscriber number, and within five minutes I had the cuts for the key, the proper blank to use and the depth and space information. Maybe I should move my code library into the office and use the mobile phone next time I need a code.

The code 10716 was crossed to cuts 1252321454. The proper 1200 code card will be XF68. The code card is not

yet available because there are some discrepancies with the cut depths and the old argument over whether the cuts are measured from the tip or the shoulder. (The door locks on this vehicle gauge the key from the tip and the ignition lock gauges from shoulders in the plug.) For now we're going to define the cut dimensions from the shoulder. Illustration three shows the proper cut dimensions for the Mazda 10 wafer lock. These dimensions are for a 10 wafer key. The eleventh wafer, that performs the valet function, is controlled by a precut position of the key. The codes contain only 10 cuts.

the blade. There's nothing wrong with that. It's probably a more accurate measurement, but the Americans measure "root depth" from the opposite side of the uncut key blade. All code machines, to my knowledge, are calibrated from the bottom of the key vise. I measured the step or "error" dimension at .080". The #1 cut was given as 5.9mm, which converts to .232" ($5.9\text{mm} \times .03937 = .232283$). If the root depth equals the cut depth plus the step error, then the root depth of the #1 cut will be .312" ($.080" + .232" = .312"$). A key cut to the dimensions given here

operated this lock. I can't guarantee much more than that.

After inspecting the locks, I found only eight wafer positions in the door locks. The two tip cuts (i.e., 9 and 10) are not used. A tip cut (V on the chart), in the eleventh position, is for the "valet" function. The tip cut will be a 4 depth if the key is a master and a 2 depth if the key is a valet or limited access key. This is the exact opposite of the Toyota T80R/T80S valet function. Toyota used a 4 cut for the valet and a 2 cut for the master key.

The Mazda valet key could be modi-

MAKE	MAZDA
BODY	MPV
YEAR	1989

CODES 10100 to 12099
CODE LOCATION stamped on passenger door lock pawl

KEY:

TAYLOR	X188
SILCA	MAZ13
CURTIS/ESP	MZ16
ILCO	MZ17

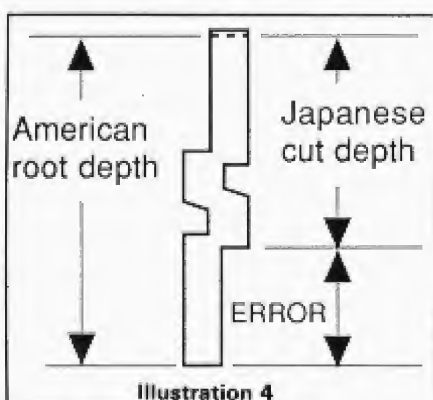
1200CM CODE CARD XF68

ROOT DEPTHS	CUT SPACING
1 - .312	A - .098
2 - .296	B - .082
3 - .280	
4 - .265	DIAL SPACE
5 - .249	V - .825
6 -	0 - .842
	9 - .760
	8 - .677
	7 - .594
	6 - .511
	5 - .429
	4 - .346
	3 - .263
	2 - .181
	1 - .098

ALL DIMENSIONS IN INCHES

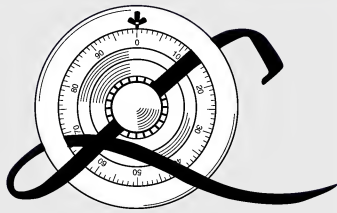
Illustration 3

Illustration four illustrates the problem with the depth of cut dimensions given here. The Japanese have dimensioned the key from the land or offset in

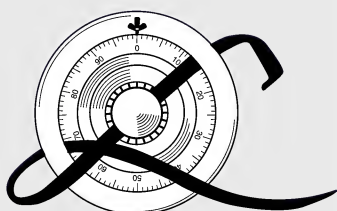


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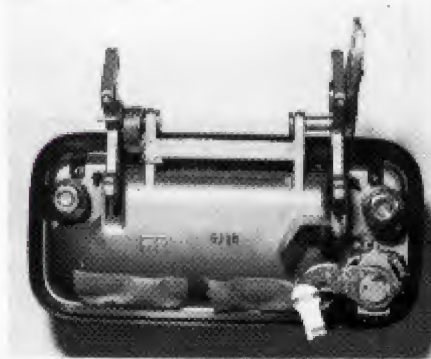
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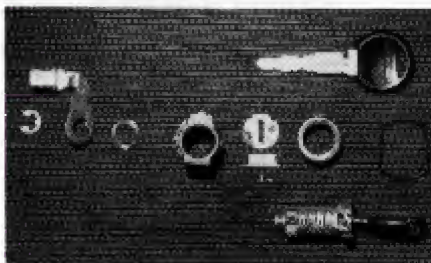
fied to become a master by filing the "V" (valet) cut to a four depth. Toyota has the better idea, in that the valet key cannot be modified to become a master. Remember the old locksmith rule, that you should make one cut in the master deeper than the corresponding cut in any of the set keys? This prevented a set key from being modified to become a master.

Door lock removal for a first key by disassembly. The Mazda door locks are modular. By disconnecting the lock linkage and the latch release linkage, the complete lock and lift handle can be removed from the door. Two 10mm nuts secure the assembly to the door. Photograph five shows the handle assembly, removed from the door. For making a first key or rekeying, complete removal would probably not be necessary. The lock cylinder could be removed with less trouble. A wire clip, shown at the far right in photograph six retains the lock cylinder in the lift handle assembly.



5. Handle assembly.

The Mazda door locks do not need a replacement cylinder cap, as the cap is only pressed in place, and comes off without damage. Photograph six shows the MPV door lock cylinder disassembled. The door cylinder has eight wafers, arranged in an opposing tumbler, alternating in an up and down configuration. The door locks use cuts one through eight.



6. Disassembled door lock cylinder.

Use care when disassembling the door locks. There is a small spring-loaded ball detent at the rear of the lock that acts to center the plug for ease of key removal. The lock pawl and "E"

ring retain the plug in the cylinder. Use caution when disassembling this lock. If the pawl is removed, the plug will slide out the front of the lock case and the ball detent will escape.

In the absence of code information or depth cutting equipment, a working key could easily be hand filed to the first eight tumblers, at this point. The two remaining tip cuts could either be progressed, as with the GM locks, or impressioned, but they are fairly easy to read. If you choose to impression the key, impression a door lock. Don't chance damaging the ignition lock to make a first key.

The rear hatch lock. The rear hatch lock, shown in photograph seven is typical of the Mazda locks on current autos. To remove the hatch lock, raise the hatch and remove four phillips head screws along the bottom edge of the trim panel. This will allow you to lower the bottom edge of the inner trim and give access to the retainer clip and linkage.



7. Typical Mazda rear hatch lock.

Do not try to remove the entire panel, as there are some one-way plastic clips that secure the top edge of the trim. They are very persistent, and will break before they come loose.

The replacement cap for the cylinder appears to be the same as the current Mazda replacement caps. (Auto Security Products P-20-205 (black). The hatch lock turns right to unlock the grip handle, concealed above the licence plate. There does not appear to be an easy way of opening the hatch, short of picking the lock.

Ignition lock removal. The ignition lock on the new Mazda Van is a little different than we are accustomed to seeing. To gain the open floor space, the shifter was moved onto the column. To satisfy the insurance industry, the shifter was made lockable. To confound the locksmith, the codes were not placed on or around the column and the lock was retained by two roll pins.

The lock is still on the right side of

the column. (See photograph 8.) The plastic cowl on the column can be removed by lowering the tilt wheel as far as possible and removing eight philips head screws. The naked column (see photograph 9), reveals a new locking configuration. The spring plunger from the left of the ignition lock, prevents the shift lever from being moved from the park position when the lock is in the locked position. As the ignition is turned to the on position, the plunger unlocks and is free to compress, which frees the shift lever.

The ignition lock assembly is fastened to the column by two shear head



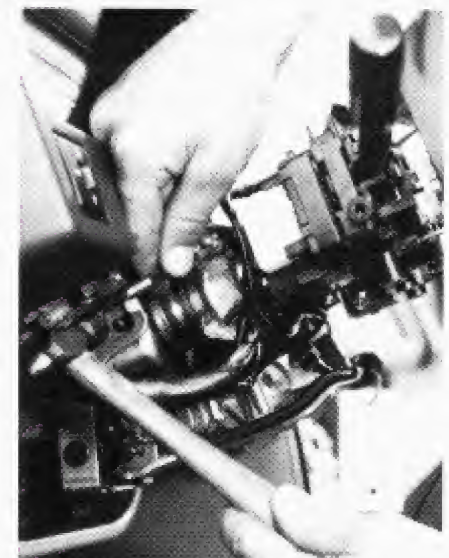
8. Lock found on right side of the column.



9. A new locking configuration evident on the naked column.



10. Shear head bolts that fasten to the column.



11. Shear head bolt removal method shown.

bolts. (See photograph 10.) The shear head bolt is not as hard to remove as you might think. The method we use is shown in photograph 11. Using a very small "prick punch" and a four ounce hammer, drive the head of the bolt around in a counterclockwise direction. Loosen one bolt by about a half turn, then work the second bolt loose. Once both are loose, work them around with the hammer and prick punch until they can be removed with your fingers. The whole operation takes about three minutes, does not damage the clamp or column and is non-electric.

Photograph 12 shows the screw removed from the saddle clamp. After removing the shear head bolts, drop

Continued on page 172



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Locksmiths Learn In Haiti

"I spent thirty days in Haiti living and working with this group of young men, teaching them the basics of locksmithing. They were quick learners."

by Lee Griggs

Wanted: One Angel. Should have wide wings capable of sheltering a group of desperate young men in a foreign country overrun with political unrest. This angel will be giving of himself and his company. The angel meeting this challenge will be instrumental in the future well being of this group of young men and their families.

Two years ago I volunteered to go to Haiti to teach a group of young men how to become locksmiths. (The account of this trip in the July 1987 issue of *The National Locksmith* magazine.) I went at the request of Max Church, a Seventh Day Adventist Missionary, living and working in Haiti.

I spent thirty days there living and working with this group of young men, teaching them the basics of locksmithing. They were quick learners. They were dedicated in their zeal to learn a profession that would help them and their families to survive.

The going wage in Haiti is three dollars a day for most working people and not more than five dollars daily for supervisors. Anyone that has a job supports their family plus other relatives and friends that have none. They do this on three dollars a day.

I had fifteen wonderful students in my classes. They were great to work with and deeply grateful for the opportunity to learn.

Upon my return to the States, I forwarded diplomas to each of them under the sponsorship of the South Carolina Locksmith Association. They cannot work as a locksmith without a diploma from a formal organization such as SCLA. The police would not give them a permit without the diploma.

I have sent other materials to them as I could to assist them in growing. Members of SCLA donated locks, excess key blanks, code keys and more to help out. Freight costs are a killer. It requires a freight shipment of some



Haitian locksmiths: (from left) Renel, Justin, Victor, Sauveur, Rolland and Karl.

*There is a saying that goes...
"Feed a beggar today and he remains a beggar, but teach him how to fish and he will feed himself."*

sort to Sarasota, Florida to get the materials to a Missionary support group. Then it is seventy-five cents a pound to get materials from there to Haiti.

I received a letter from Max Church this past December with photographs of some of the men and their diplomas. Max has not been able to locate three of them because of the political unrest in the country.

About two months before the letter was written, Mascary Pierreville, one of the students, died from a severe case of Malaria. This is not uncommon in the outlying areas of Haiti where there is little medical care for those that can't afford it. His diplomas were passed on to his brother for his family to keep.

The shop in Petionville is still operating, although at a very low level because of no keyblanks or inventory. They would like to open a shop in Carrefour, in the area most of them live, but are unable to do so because there is no money or materials.

As locksmiths they can make twenty dollars a day or more for each of them but they must have materials and equipment to do so.

Wanted: One or more angels capable of providing keyblanks, supplies, tools and machines.

The United States sends aid to many countries, much of it in arms or other equipment that usually benefits the already rich. The Student Locksmiths Association of Haiti can use your aid. This is aid that will directly benefit a group of individuals pledged to train others in this field to enable them to help themselves.

There is a saying that goes something like this: "Feed a beggar today and he remains a beggar, but teach him how to fish and he will feed himself." These young men do not want to remain beggars. They want to support themselves through their efforts. You can help them to do this.

Packages may be shipped by UPS or other routes to Max Church, c/o Agape Flights, 8090-15th Street East, Sarasota, FL 34243. These packages must be accompanied by a check or money order made out to Agape Flights for seventy-five cents a pound. If this is not done, then Max has to pay the freight when it arrives in Haiti and he does not have the money.

If you have questions, write to Lee Griggs, President, South Carolina Locksmith Association, P.O. Box 1174, Camden, SC 29020, or call (803) 432-8099 during working hours, and I will try to answer your questions. Renel, Justin, Victor, Sauveur, Rolland and Karl will really appreciate your help and so will I.

For them, it will mean a chance to grow and a chance for their families to survive. For you, it will be a chance to help them become someone. We can promise you letters, pictures and other contacts to let you know just how your gifts are used and the results being achieved. ■

Rola-Case Storage System

"Time is money. Anytime you must rummage through several boxes in your truck to find everything you need to do a job, you are wasting both."

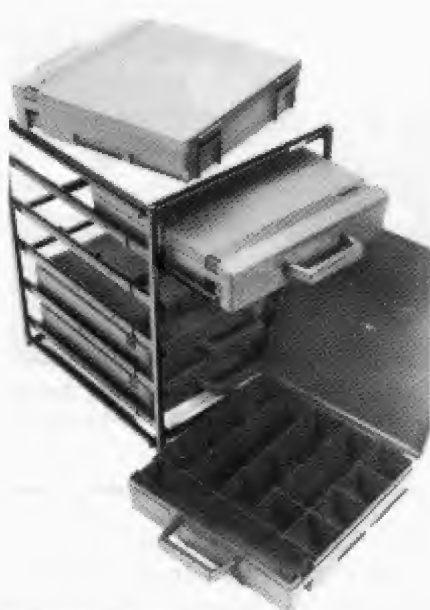
Storage of small parts has always been a problem for locksmiths, especially in service vehicles. But the new, fully patented, Rola-Case storage system offers a solution to this problem.

The Rola-Case storage system by Auto Security Products consists of lightweight yet durable molded plastic cases which fit into a specially designed metal frame with roller tracks to create a fully integrated drawer-like storage system. In a service vehicle the cases are held into the frame by individual latches to prevent them from sliding out while driving. Upon reaching the job, simply flip up the latch and pull out the case you need just like a drawer.

You can then open the plastic case to gain access to the contents while you work inside your service vehicle, or you can tilt the case five degrees upward, lift it out of the frame and carry it with you to the job site, just like a briefcase or tool box. After completing the job, simply insert the case back into the frame, secure it in place, and be on your way to the next job.

Time is money, and anytime you must rummage through several boxes in your truck to find everything you need to complete a job, you are wasting both. A safeman, for example, with a 3-drawer Rola-Case system in his service vehicle, could put all Diebold parts in drawer 1, all Mosler parts in drawer 2, and all Sargent & Greenleaf parts in drawer 3. So when called to service a Mosler safe, he can simply remove the appropriate case from the frame and carry it with him to the location of the safe. All needed parts will then be beside him in one box as he services the safe, eliminating time consuming searching for parts, trips back to the service vehicle, and trips back to the shop to try to find the needed parts.

The interior of each case is molded into 12 compartments. Additional dividers are available to change the layout of the interior to a maximum of 21 compartments.



Rola-Case 5 tier system.

Rola-Case systems are available with 2, 3, or 5 cases. And for future expansion additional systems may be stacked on top of and securely connected to

existing systems. The flexibility of the Rola-Case systems allows an almost unlimited number of options for arrangement and use. While perfect for service vehicles, Rola-Case systems are also ideal for the shop, home, or any other location with a small parts storage problem.

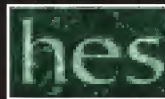
Rola-Case systems are compact to fit in even the smallest vehicles. As life becomes geared to smaller vehicles because of increasing fuel prices, parking problems, etc., a Rola-Case system can help make a small van or station-wagon as space efficient as a full sized van.

A Rola-Case system occupies an area of only 16½" x 18½". The height of a two tier system is 10½", a three tier system is 14½" and a five tier system is 22½".

Auto-Security Products, of Kirkland, WA, is the supplier of all Rola-Case products to the locksmith industry through locksmith supply wholesale distributors. ■



Inside divider compartments of the Rola-Case.



The Abus Diskus Padlock

"When in the locked position, the shackle opening then hidden in the lock body, is covered with the hardened retaining cover. The lock is also stainless steel."

A history of experience combined with modern high technology is the background of the latest development from Abus, the Abus Diskus No. 20/70 with a pick-resistant Abus-Plus cylinder. (See illustration 1.)

One aim in development of any new product in the Abus philosophy is to balance both the security and better time resistance against possible attacks of brute force and picking attacks.

The unique diskus-shaped stainless steel case of the Abus Diskus padlock leave no access to the shackle when the lock is in use, thus offering protection from brute force.

The shackle, which covers more than $\frac{3}{4}$ " of the circle of the lock, is secured in two ways: 1) A bolt keeps the shackle in the locked position and no force can be applied to the cylinder locking element via the shackle. 2) The shackle driver works separately but, at the same time provides the locks with a second bolt in the locked position. (See illustration 2.) All Abus Diskus padlocks have this double-locking action and when you turn the key slowly you will notice that the shackle starts to move with a slight delay. With the first movement of the key the bolt is withdrawn and then the shackle driver starts to work.

A further feature is that in the locked position, the shackle opening which is then hidden in the lock body, is covered with the hardened retaining cover. Also featured is the stainless steel rust resistance of the lock.

The Abus engineers faced the challenge to develop a cylinder which corresponds in its picking resistance with the mechanical strength against attacks with all kinds of tools. The answer is the highly pick-resistant Abus-Plus cylinder with hardened and drill-resistant retaining cover.

Six active and two passive locking discs provide the cylinder with the pick-resistant feature. Illustration three shows one of the locking discs.



Illustration 1

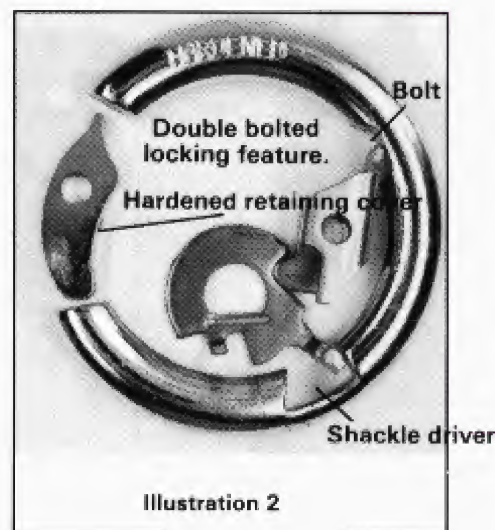


Illustration 2



Illustration 3



Illustration 4

The pick resistance is based on the blind cuts which are close to the real cuts. Picking the cylinder, the blind cuts mislead the "picker" and finally he gets lost in the labyrinth of key changes which reflect theoretically the sixth power of six in the case of Abus No. 20/70.

These Diskus Padlocks are available keyed alike and master keyed as well. A master locking disc has two real cuts and of course additional blind cuts. (See illustration 4.)

To compliment the well designed lock, the key is made of a durable nickel-copper alloy with an attractive vinyl key head. Each set of keys consists of two keys and a key code tag bearing the six digit secret code. Abus offers an Abus-Plus decoder, key cutting device which can be used on various key cutting machine, and a special Abus-Plus key cutting machine, exclusively for Abus Plus keys which are used in Abus Granite and Abus Diskus padlocks. ■

The American Security Show

"The 3,500 attendees were able to view 93 booths and visit with representatives from over 200 manufacturers. The theme was Experience is Knowledge."

The 1989 American Security Show, held March 19, broke all American Lock & Supply show attendance and sales records. This year's show, held in Los Angeles County for the first time, was located at the Los Angeles Airport Hilton and Towers.

The change in venue from home-base Orange County did not hinder the show's success. Over 3,500 customers attended this year's event, 500 more than last year. "We were concerned about the possibility of a drop in attendance because of the change to Los Angeles County," AmLock's Merchandising & Promotion Manager Tom Bokarae said, "but we were pleasantly



Locksmith examines computerized equipment.

surprised. The LAX location was more convenient for not only the many Los Angeles area customers, but also for the growing number of people who

come from out of state." Bokarae added that the number of room reservations at the Hilton was fifty percent higher than last year's reservations at the Anaheim Marriott.

The 3500 attendees were able to view 93 booths and visit with representatives from over 200 manufacturers. In keeping with this year's theme, "Experience is Knowledge," Amlock placed greater emphasis on education by sponsoring three days of product, marketing, and financial seminars. The 1989 show had a new twist: Sanwa Bank; White, Nelson & Co., a CPA firm; and Cheryl Strain & Associates, a group of financial consultants, featured booths. Their

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Sample retail display unit.

presentations on estate planning, investments, and tax information drew large crowds.

The idea for the financial presentations at the show came from company president Sean DeForrest, who said, "Our customers are looking for products and services outside the normal product lines available from most dis-



Manufacturer explains her product line.

tributors. This year's show was our first major attempt to offer management and financial services not available from any other wholesale distributor."

Next year, the American Security Show returns to Orange County and is scheduled for April 1st at the Disneyland Hotel. ■

Safe Tech '89

SAVTA's second annual convention, Safe Tech '89 is now history, and at the moment, the Association has nothing left to do—except to tie up the loose ends, try desperately to catch up on all the work that *didn't* get done while the convention was in progress, finish up one magazine, start another, and of course, start work on Safe Tech '90! That hasn't left a lot of time for basking in the afterglow of the convention's success.

Safe Tech '89, held this year in Lexington, Kentucky, May 8-13, was a rousing success. Attendance and the number of exhibitors were nearly double that of 1988, and SAVTA has already sold more booths for next year's San Diego convention site than were on the floor this year.



Stan Fuher of Allied/Gary had standing room only in his factory certification class.



Dennis Watanabe, CML, conducts the fresco portion of the Safe Moving & Anchoring class.

More than 200 students taking a total of 575 class units attended the four days of safe and vault related classes. Among the many highlights were Skip Eckert's Money Chest Penetration class, Brian Costley's Electronic Safe Locks and GSA classes, factory certification classes from Allied/Gary, Fichet-Bauche, AMSEC and Sargent & Greenleaf, and Geoff Cookson's classes in Lever Lock Picking and X-6 Servicing & Penetration. This year's



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bank equipment curriculum included classes in ATM servicing, safe deposit box locks, night depositories, and time-lock emergency procedures.



Harry Driver's Night Depository class was packed. Information on these units is always hard to come by, but Harry's students are well supplied now!



Students were able to visit and exchange notes during the community lunch break.

Several special interest tours added a new dimension to the convention this year. Particularly well received were factory tours of Allied/Gary and Hamilton Products Group, and Precision Products and Sargent & Greenleaf, with a special tour of the Harry C. Miller Lock Collection thrown in. SAVTA also sponsored a "Night At The Races" at Lexington's famous Red Mile harness track, which was a big hit with the 160 who attended.

The two-day Manufacturer's Showcase, which followed on the heels of the education program, presented 35 exhibitors with a large and enthusiastic crowd of safe and vault technicians. Among the safe manufacturers represented were A & B Safe, Adesco, Allied/Gary, American Security Products, Armadillo, Cannon, Elsafe, Fichet-Bauche, Gardall, Hamilton, Lord Safe USA, Knight Maximum Security, Meilink, Mutual, New England Safe, OTI, Schwab and Wilson.

Lockmakers S & G, LaGard and Rehlor SA attended, along with tool and equipment companies such as Timemasters, Lockmasters, Olympus, MDS, Safeman Supply, Woodward



The exhibit floor, prepared for the onslaught in the show's opening moments as the crowd enters in the back.

Manufacturing, New Haven Moving Equipment Company, Strong Arm Security, McIlheney Locksmiths and Stationmate.

Plans for next year's convention in San Diego call for 60 booths on the floor, 65% of which were sold at this year's show. SAVTA is expecting as large an increase in exhibitors and attendance next year as was experienced this year. ■



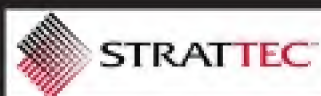
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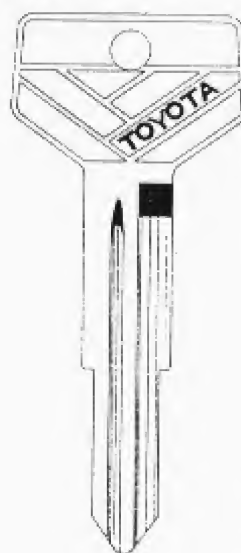
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Engineered Security Products



B63

ESP #B63-C
ILCO P1098CV
CURTIS B63
Late Model GM
Ignition.
C Section
Chev Berretta, Corsica
Available March 1989.
Nickel-plated brass.

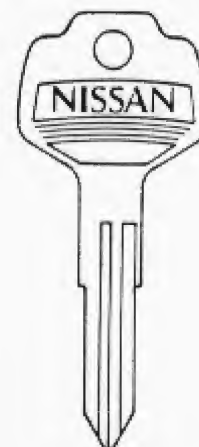


TR39

ESP # TR39
ILCO #TR39
TAYLOR X151
Late Model Toyota
Available February 1989
Nickel-plated brass.

Briggs & Stratton

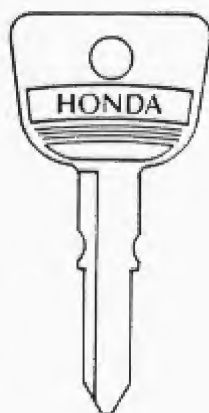
NISSAN



**321727
NA**

1982 some models
1983 - Current (All models)
+ Subaru 1985 - Current
ILCO #DA 25
Curtis #DA 27

HONDA



**321728
HA**

1982 - 1983
Civic & Prelude only
ILCO #HD 82
Curtis #HD 80



**321729
HB**

1982 - 1983 Accord
1984 - 1987 (All models)
Also works in
Acura and Integra
OEM #35111-SA5-922AH
ILCO #HD 83
Curtis #HD 79



**321730
HC**

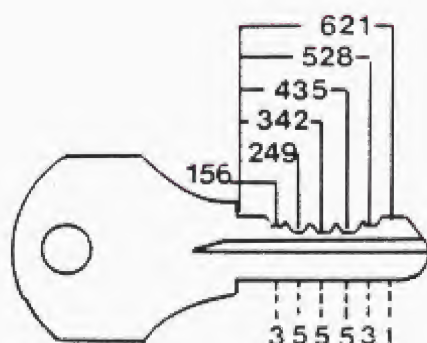
1988 Civic
OEM #35113-SH3-003AH
ILCO #HD 88
Curtis #HD 88

Fort Codes

L001-1000

001-1000

©The National Locksmith, Streamwood, IL 60107



Editor's Note: These are two Fort series which use the same codes and key cutting information.

DEPTHS

0 -	5 - 0.190
1 - 0.250	6 -
2 - 0.235	7 -
3 - 0.220	8 -
4 - 0.205	9 -

KEYWAYS

Original 00V
Iico 1000V

medeco
HIGH SECURITY LOCKS

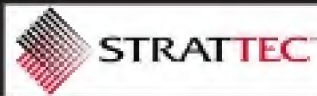
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001-1000 FORT L001-1000 FORT

Keyblanks:

Original 00V
 Ilco 1000V
 HPC N/A

0001	0051	0101	0151	0201
01 533355	51 331115	01 51535	51 151115	01 555115
02 331515	52 551515	02 153135	52 313535	02 551555
03 153155	53 311335	03 153335	53 331535	03 533155
04 513115	54 353315	04 311135	54 115335	04 351315
05 553315	55 315115	05 313515	55 355315	05 113135
06 555335	56 313555	06 353115	56 335135	06 511515
07 535535	57 533335	07 511355	57 511315	07 111335
08 333355	58 551155	08 555155	58 111313	08 151315
09 553135	59 331135	09 115555	59 515335	09 155335
10 131335	60 513515	10 113335	60 135335	10 533555
11 515555	61 315155	11 311535	61 315315	11 313135
12 131555	62 135555	12 353555	62 113315	12 331315
13 151155	63 313115	13 535135	63 115535	13 555355
14 355535	64 353335	14 115515	64 553535	14 515155
15 513135	65 311315	15 131135	65 515315	15 513335
16 331555	66 331155	16 151355	66 353535	16 151555
17 535315	67 353135	17 555315	67 333115	17 311555
18 553155	68 533115	18 535555	68 113515	18 331335
19 533535	69 153315	19 133515	69 553515	19 111315
20 531115	70 531155	20 315135	70 133315	20 135155
21 155555	71 333515	21 131155	71 515535	21 133115
22 555135	72 351335	22 351155	72 355335	22 151335
23 135535	73 155115	23 131515	73 313315	23 511555
24 551115	74 153555	24 511135	74 155535	24 531535
25 115135	75 315555	25 151135	75 311155	25 115155
26 133535	76 113115	26 111355	76 511535	26 513555
27 335535	77 135355	27 315355	77 111511	27 335335
28 115355	78 135315	28 111535	78 333135	28 533515
29 531515	79 115115	29 553115	79 335155	29 113555
30 511335	80 355355	30 333315	80 135115	30 535355
31 333335	81 551315	31 315515	81 355555	31 531315
32 315535	82 133555	32 131315	82 155155	32 555515
33 313355	83 535115	33 331355	83 351355	33 535335
34 515115	84 553355	34 531335	84 531135	34 355155
35 313335	85 351515	35 131535	85 133135	35 153515
36 155355	86 311515	36 153535	86 515135	36 335115
37 515355	87 333155	37 551135	87 153355	37 531333
38 353155	88 553555	38 113355	88 513155	38 155533
39 111515	89 533135	39 151535	89 155315	39 531313
40 333535	90 553335	40 551355	90 535515	40 553333
41 315335	91 513315	41 531555	91 551335	41 333153
42 351115	92 115315	42 513355	92 355135	42 315313
43 533315	93 351555	43 133155	93 135135	43 331353
44 511515	94 135515	44 131355	94 335515	44 155313
45 111555	95 133335	45 335555	95 153115	45 555553
46 513535	96 113155	46 535155	96 155515	46 351533
47 151515	97 335315	47 133355	97 511155	47 511513
48 333555	98 313155	48 551535	98 351135	48 555533
49 311355	99 531355	49 353355	99 155135	49 331553
50 353515	00 355115	50 555535	00 355515	50 311553

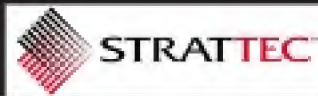


001-1000 FORT L001-1000 FORT

Keyblanks:

Original 00V
 Ilco 1000V
 HPC N/A

0251	0301	0351	0401	0451
51 333133	01 153313	51 153553	01 135113	51 135353
52 115513	02 135513	52 133513	02 511313	52 355513
53 351353	03 315553	53 333553	03 531553	53 515133
54 315133	04 551513	54 151133	04 113553	54 533533
55 335335	05 515153	55 315153	05 553533	55 511333
56 515513	06 313533	56 315533	06 133313	56 155133
57 535553	07 355153	57 531153	07 311153	57 511133
58 535153	08 551313	58 335133	08 151313	58 555353
59 131333	09 311353	59 155353	09 131353	59 335333
60 335313	10 331333	60 331513	10 531113	60 155113
61 113153	11 555513	61 155133	11 515353	61 535353
62 331133	12 311313	62 153153	12 135533	62 155333
63 333353	13 131513	63 515113	13 353553	63 115153
64 511153	14 355533	64 513153	14 355333	64 353113
65 133353	15 115353	65 511353	15 533333	65 313513
66 533113	16 351553	66 355353	16 553353	66 151153
67 313333	17 335553	67 151553	17 315333	67 153333
68 535113	18 353133	68 155153	18 335533	68 535313
69 515313	19 113513	69 115553	19 113313	69 113333
70 331313	20 133113	70 553553	20 331153	70 531111
71 513133	21 553513	71 313353	21 151113	71 315511
72 553313	22 351153	72 355113	22 513513	72 353311
73 111353	23 511113	73 515333	23 533513	73 351351
74 515533	24 513353	74 313133	24 151333	74 133531
75 151533	25 353333	75 533133	25 553133	75 113351
76 513113	26 513553	76 551133	26 111553	76 511311
77 335353	27 331533	77 133333	27 351333	77 313111
78 533153	28 115313	78 551553	28 533553	78 513551
79 513313	29 533313	79 151353	29 115333	79 335151
80 355313	30 135133	80 115113	30 311133	80 131531
81 113133	31 335513	81 351113	31 131153	81 313131
82 153533	32 313313	82 531133	32 555113	82 553551
83 333533	33 511553	83 113533	33 133133	83 355111
84 133553	34 311513	84 135553	34 333313	84 113331
85 551533	35 353553	85 133153	35 535513	85 511531
86 315113	36 515553	86 333113	36 535333	86 115151
87 133533	37 131313	87 551353	37 551153	87 315331
88 111513	38 153513	88 335113	38 131133	88 131331
89 311533	39 335153	89 535533	39 113353	89 553311
90 315353	40 531533	90 131533	40 353513	90 133511
91 313113	41 551113	91 511533	41 153133	91 135311
92 153313	42 551333	92 113113	42 151513	92 555311
93 515133	43 155513	93 135333	43 331113	93 153551
94 313553	44 351133	94 313153	44 531513	94 511151
95 513533	45 353313	95 555333	45 513333	95 115531
96 155553	46 131553	96 533353	46 315513	96 555531
97 531353	47 351313	97 153113	47 353533	97 551311
98 135313	48 135153	98 555133	48 115133	98 111551
99 353153	49 553153	99 333513	49 555313	99 515311
00 355553	50 553113	00 115533	50 555153	00 335551



001-1000 FORT L001-1000 FORT

Keyblanks:

Original 00V
 Ilco 1000V
 HPC N/A

0501	0551	0601	0651	0701
01 551511	51 133311	01 333311	51 551151	01 535511
02 555131	52 553531	02 153131	52 133111	02 331133
03 513351	53 135331	03 153531	53 531351	03 113315
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001-1000 FORT L001-1000 FORT

Keyblanks:

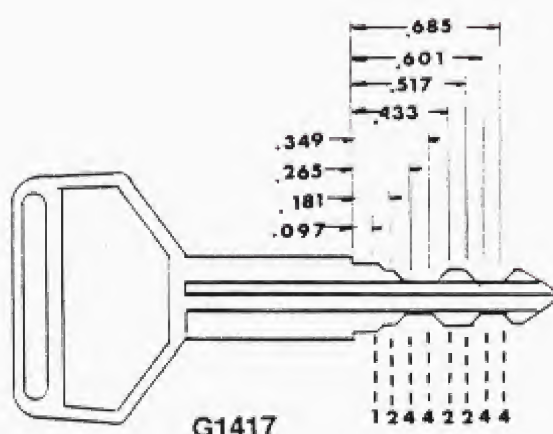
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00 115351	50 135531	00 331151	50 135115	00 115535

Toyota Corolla 88 + Codes

P0001-2000

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G1417

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DEPTHS

0 -	5 -
1 - 0.324	6 -
2 - 0.297	7 -
3 - 0.270	8 -
4 - 0.243	9 -

KEYWAYS



HPC/Silca
Taylor

TOY38R
X174



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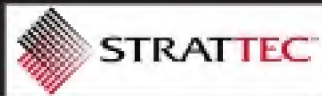
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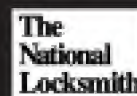


P0001-2000 TOYOTA

Keyblanks:

Silca **TOY38R**
Taylor **X174**
Curtis **TR-40**

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06 33432221	56 44313423	06 42232211	56 12332113	06 44212112
07 44321334	57 33231232	07 33424332	57 11312324	07 43432421
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16 21334243	66 31232113	16 43113321	66 32212331	16 13334224
17 13433124	67 13423323	17 42432111	67 24433112	17 12324424
18 42112331	68 32442423	18 22124323	68 44212334	18 43224342
19 33222331	69 32124331	19 31342244	69 44212312	19 33443213
20 24221324	70 21134222	20 44343312	70 31121344	20 44243231
21 32443222	71 32422123	21 21243223	71 21324421	21 43124311
22 12442321	72 31223132	22 44324332	72 11332122	22 43442432
23 21124311	73 21131331	23 21313213	73 31121132	23 23342324
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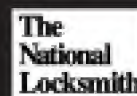


P0001-2000 TOYOTA

Keyblanks:

Silca TOY38R
 Taylor X174
 Curtis TR-40

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59 33112433	09 43224431	59 31221221	09 44421343	59 21223133
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61 22311321	11 22213123	61 24333112	11 21233324	61 32433122
62 42131134	12 44343323	62 21332434	12 31334221	62 12234223
63 42243212	13 11223243	63 44222113	13 23443223	63 21223344
64 32224433	14 31221124	64 23122123	14 43342442	64 44232242
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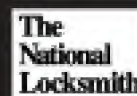


P0001-2000 TOYOTA

Keyblanks:

Silca **TOY38R**
Taylor **X174**
Curtis **TR-40**

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P0001-2000 TOYOTA

Keyblanks:

Silca TOY38R
 Taylor X174
 Curtis TR-40

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79 32134312	29 44433232	79 32224344	29 12322332	79 32122421
80 33422244	30 33324422	80 42132133	30 33211221	80 24323112
81 22113421	31 22424334	81 31133124	31 34423111	81 42133431
82 33212133	32 21334331	82 32312423	32 32432432	82 13312321
83 44233231	33 42113222	83 34443111	33 12422313	83 11211334
84 43343212	34 42333422	84 42443342	34 23443113	84 33243321
85 24211232	35 43322331	85 12422442	35 32221323	85 13112434
86 32312322	36 42244312	86 11221324	36 11124423	86 13343224
87 42231242	37 32442332	87 ????????	37 13213112	87 42311322
88 21124332	38 43122113	88 ????????	38 42133321	88 13342131
89 21312324	39 22311332	89 21243124	39 42421342	89 22313242
90 23444313	40 23342242	90 33121121	40 22133321	90 11333124
91 11134432	41 43113134	91 ????????	41 33221134	91 22312443
92 44313211	42 43432234	92 33244234	42 42422443	92 43312132
93 44323323	43 43211244	93 21213424	43 42344312	93 42321311
94 34423122	44 33132121	94 32443213	44 32212211	94 42344421
95 24424332	45 43321313	95 43112224	45 22213244	95 32334234
96 12443123	46 31233321	96 31113243	46 32122113	96 44342323
97 43231213	47 11233132	97 22234231	47 31133431	97 32432243
98 32432431	48 42224442	98 11311322	48 31134231	98 31234244
99 22334231	49 43322311	99 32242213	49 42134224	99 43332213
00 44224343	50 33312312	00 31121324	50 ????????	00 44421132



P0001-2000 TOYOTA

Keyblanks:

Silca TOY38R
 Taylor X174
 Curtis TR-40

1001	1051	1101	1151	1201
01 32433234	51 43422423	01 13431121	51 13421342	01 21122423
02 22443321	52 43324432	02 31123343	52 31123223	02 12313423
03 12344222	53 32312324	03 42121344	53 42433321	03 42124321
04 12432132	54 32213223	04 43312433	54 42111321	04 32442443
05 21233232	55 33421231	05 21321311	55 31123234	05 31212242
06 21342224	56 42243112	06 33321234	56 21333242	06 12313444
07 22211343	57 23221323	07 31324433	57 31132321	07 42442112
08 32312113	58 21224432	08 22431132	58 21344431	08 31213243
09 31221324	59 42123132	09 43124344	59 43213332	09 43442332
10 22213312	60 23423111	10 22332432	60 33324423	10 13424332
11 32134421	61 21243312	11 13432434	61 44322211	11 33432132
12 42234331	62 42123444	12 42113444	62 44432232	12 32223313
13 43443124	63 42131334	13 22311343	63 13433123	13 22431221
14 31332242	64 32443212	14 23442421	64 21122331	14 43422324
15 31232442	65 12443343	15 12321324	65 42432134	15 44433213
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18 33422131	68 43224334	18 42212133	68 43243342	18 43222134
19 32422323	69 33111234	19 42421322	69 34433122	19 24342313
20 12331344	70 32113113	20 13134221	70 32443243	20 33131134
21 33432121	71 11213421	21 31223111	71 42324324	21 43312344
22 12422132	72 43344323	22 11234324	72 33121224	22 21231212
23 43423231	73 31122312	23 43332444	73 43123424	23 42334234
24 43423313	74 34233111	24 11222113	74 44344312	24 11212431
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26 22313324	76 22444234	26 42313443	76 44432124	26 43324224
27 32423421	77 12333123	27 21342231	77 44232232	27 31131334
28 43244223	78 43331232	28 33242231	78 32221343	28 42133421
29 43233213	79 34434222	29 33432134	79 32242313	29 34442112
30 42213122	80 22111234	30 13332221	80 33112423	30 21231211
31 43131124	81 22213124	31 21243331	81 21123122	31 42113421
32 44331211	82 32244311	32 44422332	82 13122134	32 42431244
33 33224334	83 31342123	33 32331124	83 33132432	33 33324431
34 33113112	84 22322444	34 12242213	84 34432112	34 44433112
35 22432243	85 21321321	35 32121121	85 42344212	35 43343423
36 43211334	86 22312342	36 43113244	86 23422323	36 32432321
37 11324333	87 44234432	37 12323313	87 12421324	37 32133222
38 42312433	88 12243432	38 31224311	88 44433422	38 31312221
39 13223432	89 31122213	39 44342134	89 32133342	39 43423344
40 33442323	90 32232431	40 11323343	90 22432421	40 22333243
41 31322311	91 43123223	41 22122133	91 11223431	41 33244323
42 12323424	92 31113444	42 22432442	92 31124343	42 22234244
43 43213322	93 34422123	43 12243321	93 21332322	43 42213123
44 33242332	94 13343111	44 42233422	94 44324243	44 13312423
45 31112321	95 13442213	45 42344313	95 13423332	45 22133422
46 32342432	96 22211313	46 43311224	96 42124423	46 43242131
47 23123134	97 32123342	47 33133442	97 24334311	47 22123123
48 42432443	98 44332443	48 22132134	98 44234243	48 33132244
49 21333111	99 33124231	49 21244322	99 22442243	49 21243233
50 42113113	00 21112321	50 13443421	00 12123112	50 21113232



P0001-2000 TOYOTA

Keyblanks:

Silca TOY38R
 Taylor X174
 Curtis TR-40

1251	1301	1351	1401	1451
51 12233133	01 31223244	51 13424223	01 43212444	51 12232112
52 43223424	02 22432332	52 12433233	02 33443244	52 44312112
53 44312334	03 43211124	53 32342443	03 43312113	53 32444323
54 33321132	04 22423111	54 43242334	04 31132224	54 44224331
55 33442224	05 42212331	55 43423134	05 32423343	55 32422433
56 13343342	06 13342121	56 33123112	06 21133131	56 42234432
57 23432242	07 12223324	57 22111221	07 44333224	57 13431131
58 42312113	08 32442112	58 31134433	08 13122112	58 22321324
59 31122244	09 42231131	59 12342323	09 32223331	59 21312423
60 42423331	10 31344343	60 32244344	10 42443422	60 21324323
61 31244233	11 32122123	61 32444232	11 33132232	61 31224331
62 23423122	12 32132424	62 21134423	12 32134232	62 23423213
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64 32213434	14 33223122	64 31132331	14 21224323	64 21112334
65 31213324	15 31322443	65 33224221	15 33221132	65 12442324
66 13132224	16 32234233	66 33421134	16 32434424	66 43123431
67 32231131	17 22113243	67 11332221	17 31224221	67 44432334
68 21122121	18 43343344	68 32124443	18 22433223	68 21231231
69 23342332	19 44342133	69 44222133	19 43342242	69 21124211
70 44331212	20 33212434	70 11331331	20 43233444	70 42433131
71 21134344	21 42423113	71 21342213	21 43113311	71 42334433
72 33312434	22 31312442	72 32233211	22 43221322	72 42332433
73 31243113	23 33221211	73 43121131	23 33421124	73 43423434
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76 42212234	26 44244311	76 11233432	26 43324211	76 21234423
77 32443321	27 44222434	77 43233123	27 44323123	77 44312433
78 33243423	28 13431244	78 33244232	28 12434433	78 44332334
79 33124324	29 43224442	79 12313343	29 21334324	79 33213134
80 43342212	30 33322121	80 42312213	30 43423221	80 21322131
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83 22244321	33 43332211	83 33112113	33 32422344	83 32434233
84 31132421	34 43433223	84 42342134	34 21312224	84 43442313
85 42244343	35 11331334	85 44331332	35 22443122	85 22311242
86 32321324	36 21213211	86 31321312	36 22132312	86 22312133
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88 42313342	38 23323322	88 44223112	38 42343324	88 33312231
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90 42431321	40 31221322	90 32232211	40 11213433	90 22443323
91 31331311	41 44334421	91 33312224	41 43113344	91 33243132
92 43443332	42 21123424	92 43221323	42 44332432	92 22431213
93 13433113	43 42432432	93 43342432	43 44211232	93 43443423
94 31122421	44 43112432	94 32223111	44 44242243	94 43331221
95 42233134	45 13433134	95 21332421	45 42442242	95 11324332
96 42213113	46 22211323	96 24213122	46 21134234	96 43224324
97 43232113	47 31342231	97 23431134	47 12443111	97 13312132
98 43421324	48 32312434	98 43244423	48 44221231	98 11234231
99 33432131	49 44324223	99 31342343	49 32131224	99 32232243
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P0001-2000 TOYOTA

Keyblanks:

Silca **TOY38R**
Taylor **X174**
Curtis **TR-40**

1501	1551	1601	1651	1701
01 32422431	51 42313344	01 44322111	51 33111342	01 12123122
02 33432231	52 43422424	02 44242331	52 23243332	02 34433222
03 31243133	53 42433224	03 21324343	53 12434232	03 23113112
04 21211343	54 21233111	04 13443443	54 43232132	04 21132112
05 23323111	55 32134434	05 42112211	55 22332443	05 42212213
06 32321312	56 23433443	06 32132132	56 22124343	06 22111224
07 12322113	57 31124223	07 43443322	57 33243113	07 ????????
08 21122112	58 42423321	08 12234232	58 22113234	08 33124243
09 43113242	59 21124321	09 43213221	59 11322321	09 13422234
10 33243312	60 22134232	10 43443312	60 43223234	10 42122433
11 12431231	61 31244222	11 21313423	61 32213442	11 31324424
12 42323343	62 42344432	12 12243332	62 21243313	12 13421313
13 44312442	63 33113434	13 33233433	63 42433124	13 12433213
14 23344432	64 32112433	14 22123311	64 11332121	14 32334311
15 32332342	65 43322134	15 21244423	65 44342121	15 42432131
16 44311213	66 43332122	16 12444224	66 43131134	16 31321332
17 22432111	67 44323221	17 42213422	67 23424334	17 44243332
18 42342433	68 31224321	18 12313442	68 43131131	18 22234442
19 42332212	69 33232244	19 23433232	69 32113442	19 11311334
20 33132424	70 44234433	20 32342421	70 12243132	20 11323243
21 23434234	71 21132132	21 33211331	71 11334321	21 32424322
22 13433244	72 32134243	22 42311232	72 22432124	22 33124313
23 42244332	73 42431311	23 22324324	73 42231221	23 33112234
24 12323423	74 43111242	24 42122431	74 21323311	24 22124334
25 24243313	75 42321124	25 11332424	75 32434312	25 23423224
26 31113231	76 12432134	26 22423342	76 43342211	26 32132234
27 21231342	77 22422131	27 12332424	77 13422332	27 44323324
28 21233244	78 44213331	28 43313242	78 42244331	28 23342131
29 12312134	79 31324224	29 32113221	79 33442232	29 32422124
30 43222133	80 ????????	30 32234244	80 43323444	30 31243233
31 33124311	81 31342133	31 32431242	81 22432231	31 21131344
32 43342322	82 42133111	32 42331121	82 31212313	32 23123334
33 21124422	83 23423132	33 21211332	83 42223133	33 44243123
34 43134432	84 12424331	34 13433213	84 31324331	34 43124333
35 21113432	85 22134223	35 21321322	85 13423334	35 22311221
36 22124442	86 23444213	36 22213233	86 43443321	36 42421321
37 11122123	87 32123424	37 42113323	87 12324443	37 12233442
38 13233112	88 11322331	38 23432443	88 33442431	38 13332123
39 43133213	89 23434224	39 33224442	89 34342323	39 44323313
40 31112431	90 43123434	40 21332212	90 21231131	40 21323213
41 43112312	91 33431232	41 44333442	91 31322211	41 31231131
42 21223321	92 42211313	42 12233234	92 21234424	42 13424313
43 42122342	93 42112244	43 23422431	93 31112343	43 43112124
44 23443334	94 11134233	44 22433134	94 32243213	44 33224324
45 23433444	95 32232244	45 24322431	95 23421234	45 44422313
46 32322444	96 32134344	46 44342321	96 23332232	46 11223132
47 32334312	97 11313243	47 43113421	97 31224442	47 42331322
48 21211232	98 13343131	48 43422312	98 21124331	48 ????????
49 12344113	99 43311212	49 21213312	99 31112331	49 33324443
50 43321131	00 22434431	50 21312424	00 42423122	50 22323443



P0001-2000 TOYOTA

Keyblanks:

Silca TOY38R
 Taylor X174
 Curtis TR-40

1751	1801	1851	1901	1951
51 13423434	01 11312334	51 44343223	01 32223323	51 24231232
52 43342443	02 32112322	52 43123331	02 11324432	52 22313223
53 13313324	03 32211234	53 44422121	03 32322434	53 43312313
54 23423434	04 42342244	54 44333422	04 12343121	54 43113424
55 21344213	05 44223224	55 31232431	05 42432324	55 32133243
56 12321313	06 23423321	56 32443334	06 43423123	56 24342323
57 11223123	07 11313424	57 11134423	07 31224313	57 42312221
58 43224224	08 42242344	58 42442232	08 22121323	58 33123322
59 44224324	09 31233134	59 12442422	09 13112433	59 44211132
60 32133123	10 31121334	60 33243213	10 44324224	60 11243223
61 43123343	11 44422123	61 43432224	11 44234431	61 43233431
62 13433122	12 22324431	62 32423131	12 22113334	62 24432234
63 42433423	13 42124421	63 42333243	13 44324312	63 21334432
64 31213323	14 32443113	64 43212213	14 32134423	64 33122344
65 11123213	15 42312122	65 32213311	15 21324324	65 31133322
66 33234221	16 44331312	66 23433231	16 31334442	66 33112431
67 32322131	17 31122122	67 12234344	17 32324423	67 12312231
68 33133122	18 43244312	68 42332121	18 33122132	68 31244321
69 21221244	19 44323443	69 12332423	19 13342112	69 22113422
70 42442321	20 43334213	70 12432224	20 44233133	70 43312244
71 21234432	21 21323243	71 32332242	21 43322423	71 33244423
72 13122432	22 24333111	72 21324221	22 31223312	72 32124334
73 42131332	23 43344311	73 42122111	23 42313244	73 24312231
74 31324343	24 22331234	74 31212342	24 31213344	74 33132431
75 23334232	25 32131324	75 42242113	25 22332334	75 22124443
76 24423321	26 13443431	76 12234322	26 33112443	76 44233312
77 43324231	27 13421331	77 42432424	27 44432432	77 42242343
78 33312344	28 33221312	78 13442334	28 21113343	78 23343322
79 44422331	29 31212444	79 32422132	29 11211242	79 43121124
80 21213431	30 12443342	80 42233432	30 42421334	80 43443211
81 31112234	31 42232131	81 12311242	31 22133311	81 21343113
82 22233231	32 13423221	82 23334234	32 42433113	82 31131134
83 32113122	33 33132242	83 32312433	33 33423113	83 11313244
84 13342242	34 31244213	84 42433211	34 33421221	84 22312423
85 31134222	35 31224333	85 21124312	35 23442423	85 44432311
86 42211213	36 43421244	86 13423432	36 44211332	86 22124431
87 12442132	37 21132212	87 44211243	37 11212432	87 32113233
88 11213332	38 23442133	88 21344322	38 21332433	88 43344243
89 33322321	39 44222431	89 43111331	39 44232311	89 44212443
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91 43122133	41 42134434	91 32231221	41 33442221	91 21324233
92 32131121	42 22122431	92 33442123	42 32432344	92 32322112
93 44432321	43 12431331	93 33311134	43 32243244	93 33443231
94 33111242	44 42443311	94 21334332	44 43423343	94 44332231
95 31133423	45 31243423	95 32123431	45 12432431	95 43243211
96 21223112	46 42134443	96 33324421	46 22234234	96 43323443
97 33324442	47 33212431	97 43432423	47 42322132	97 21124424
98 21223331	48 31324431	98 42233213	48 42334222	98 32112242
99 13424234	49 23423223	99 32421324	49 22311234	99 12442342
00 33134223	50 32122424	00 21134243	50 22112323	00 42221132

Shop Talk

Helpful Questions and Answers

Written by all of the following authors: Don O'Shall, Shirl Schamp, Dale Libby, Jack Roberts, Dave McOmie, and Robert Sieveking.

Send your locksmith questions, along with a self-addressed stamped envelope to: Shop Talk, The National Locksmith, 1533 Burgundy Pkwy., Streamwood, IL 60107.

Q: I have a challenge concerning safe opening. I am new to the business and am intrigued by safes. The small town I live in has an over-abundance of pre-1900 safes, and I have been called upon to open the inner boxes of a safe in one of the old casinos in town. The safe is marked with "Gary Safe Co." and Hart Safe Co. on the front of the door and frame. The interior is 20 small safety deposit type boxes around a larger one.

The customer advised that the safe was in the casino when he bought it and to his knowledge it has been in the building since around 1850. The locks on the small doors have a single key-way and require two keys to open them. The owner does not have a key to them. What would be the best method of entry into the boxes? The owner does not want to spend a great deal of money.

I also have a double-door Terwilliger safe at the sheriff's office that they use on a regular basis. Do you have any information on this model? At the local museum there is a small safe that has been sitting outside the building forever, and prior to my moving here a tourist told the curator that he could open the safe and did a butcher job on the door. This safe has only faint markings that appear to be "Williams" something on the front top frame.

I have also been told of several other safes in the area that date back to pre-1850 and are still in use. I know I am going to have my hands full should I get a lockout. I would appreciate any help you could give me.

*Skip Smiley
Nevada*

A: Skip, my first guess is that the "Gary" safe is actually a Cary. That Olde English script that Cary used tended to make the C look like a G. In fact, it was for this precise reason that in 1952, Oscar Guze named his company Gary. As the story goes, Oscar thought he could get a lot of business through the similarity in names. Perhaps he did. According to my old friend, Stan Fuher, who is the Technical Service Advisor with the Gary Safe Company, they still get calls from people with Cary safes that think it says

Industry Meetings

August 18-20, 1989

Clark Security Products
Rocky Mountain Trade Show
Denver, Colorado
Contact: Clark Security, (800) 282-5625.

September 9-10, 1989

The Greater Chicago Locksmiths Association Fifth Annual Midwest Trade Show and Banquet
Rosemont, Illinois
Contact: Robert McCown, Pres. G.C.L.A. (312) 486-2030, 2307-11 N. Western Ave., Chicago, IL 60647.

September 9-October 1, 1989

Maryland Locksmith Association
Second Annual Ocean City Educational Weekend
Ocean City, Maryland
Contact: Gil Persichitti, (301) 327-0503, after 6 p.m.

September 28-October 1, 1989

Alberta Locksmith Association, Convention '89
Red Deer Lodge,
Red Deer, Alberta, Canada
Contact: Garry Hrycyk, Chairman: (403) 783-3189; Kevin Engel, Assistant: (403) 343-1391.

October 8, 1989

Greater Houston Locksmiths Association Trade Show and Clinics
Contact: Denise Stanaland (713) 331-1336 or Betty Gray (713) 449-0845.

October 12-15, 1989

Penn Ohio Locksmith's Association, Inc. Annual Convention
Marriott Greentree
Pittsburgh, PA
Contact: Martha Eggler, Convention Secretary, 6064 Middlebrook Blvd., Brook Park, OH 44142, (216) 676-8464.

October 13-15, 1989

The Association of Ontario Locksmiths Convention
Scarborough, Ontario
Contact: The Association of Ontario Locksmiths, 128 Manville Road #17, Scarborough, Ontario M1L 4J5.

October 14-15, 1989

Lou Miss Laignape
Convention Center
Vicksburg, MS
Contact: Elizabeth Higginbotham, 7428 Madison Dr., Biloxi, MS 39532, 601-392-6483.

October 24-29, 1989

Tri-Regional Locksmith Conference
Airport Sheraton Hotel
Portland, Oregon
Contact: Maborn Green, 21603 S.E. Stark St., Gresham, OR 97030, (503) 665-4948.

Gary!

As for the Terwilliger, I will need a photograph to identify the safe. Among us self-proclaimed historians, there rages a debate over whether such companies as Terwilliger, McCaskey, Wilshire, and Morris & Ireland ever actually manufactured safes. Some think they all were just dealers who handled certain manufacturer's products. In any event, I will guess your Terwilliger is actually either a MacNeal & Urban, or an old Herring with a Dexter lock. I have seen them both ways.

04

Q: Photograph one shows an old padlock that we want identified. We would like to know the make, age, and approximate value of the lock. The lock is about 6" long and the key screws in.

*Norman Leger
Indiana*

A: The piece your customer has is known as a "screw-key" padlock and is perhaps a valuable collectors item.



1. A padlock submitted for identification.

Several important questions, however, need answering before we could possibly make an evaluation. What material is the lock made from? Does it have a spring bolt/latch? What are the dimensions? (Not "about six inches" but exactly.) How many turns of the key to open the shackle? Does the key turn right or left to open the shackle? Is this *really* an old padlock or does it appear to be a reproduction?

In the absence of answers to these questions I can only tell you that sev-

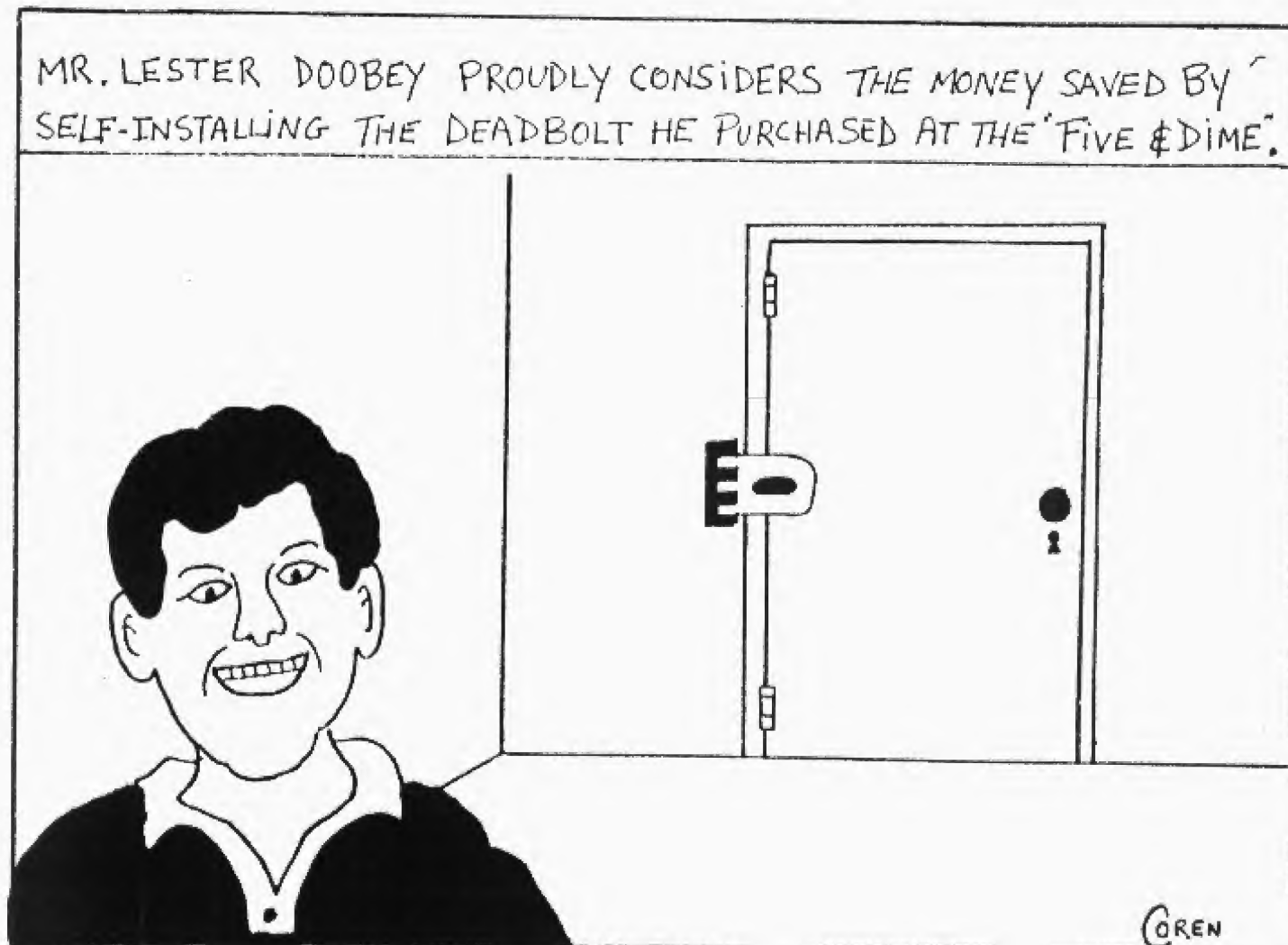
eral patents were issued for this type of padlock through the years, the earliest that we have found was in 1866 and the latest in 1928. Somewhere in that period is a date for your piece. I will hazard a guess that it is from hand-forged steel, has a spring latch and takes 3-4 turns of the key to open.

Going a little further out on the limb, I'll make a guess at William Smith, New Castle, PA, patent #528743 Nov. 6, 1894; Frank Lewis, Buffalo, NY, patent #1,005,852 Oct. 17, 1911; or Leon Greber, Roslyn, NY, patent #1,284,655 Nov. 12, 1918.

I won't even attempt to name a manufacturer. It could have been Russell & Erwin, or could have been anybody. I can tell you that authentic operating padlocks such as this have values ranging from \$20 to \$250.

On the other hand, if it is made of brass or steel and turns to the left to open, it is probably from the India, Pakistan area and would have a value to a collector of maybe \$5.

The type of spring it has can be a clue as to age. If the spring is flat it would indicate an early age since the early artificers did not have the technology



to produce a round wire spring. Also, a lot of these items are made in Mexico, buried for a year or two (literally), dug up and sold as authentic.

I would suggest visiting the Midwest Lock & Key Show at the Days Inn, 3801 N. Mannheim Rd., Schiller Park, IL on August 4-5, 1989. Talk with Bob Dix. A few minutes with Bob could answer all of your questions. 03

Q: I have a customer that has a 1946 model AMI juke box Model A that has a cam lock on the coin box. When he bought the box he only had one key to it. Now he would like to have a spare key and a spare cam lock. The key has Bellock, 50A1 stamped on one side and Eagle Lock Co., Terryville, Conn., Stamped on the other side.

Could you advise me where I might find extras to these two items? Your advice would be greatly appreciated. Also the keys are not cut like most actual keys. They have a groove cut in the side of the blank like a fishing worm crawled through it.

*Randy Railton
Missouri*

A: Bell locks are no longer manufactured, nor are the keys or blanks readily available. Bell was primarily an O.E.M. (Original Equipment Manufacturer), making a higher security version of the disc (or wafer) tumbler utility lock. They were once common on all types of vending machines, and on parking meters.

In principle, they function very much like a standard disc tumbler lock, except that the cuts on the key form a wavelike groove on the side(s) of the key blade, into which a prong or tip on the tumbler rides. The tip of the key blade is a V-shape to catch the tumblers and raise or lower them until they line up at the center of the key, where they enter the cut groove, and are then raised and lowered according to its particular pattern. Once the key is fully inserted, the tumblers are held at their respective heights.

If the key is correct, the upper and lower shearlines will now be clear, and the plug can rotate.

Although several versions existed, most were double-sided, with each tumbler "paired" so that the right side of the key for a particular position operated the tumbler on that side, while the left side of the key operated the tumbler on its left, which would be

spring-loaded in the opposite direction from its mate in that position on the right side of the key. (See illustration two).

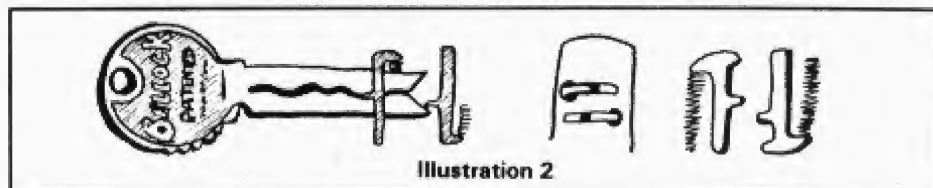


Illustration 2

That explains what you have, but doesn't solve your problem. The good news is that there are some solutions. The bad news is that none of them are easy or cheap for your customer. It is time to separate the wheat from the chaff.

Telling me what your customer wants is like telling me his kid likes ice cream or cookies. Of course he wants a spare key and a spare cam lock. They will make his life easier.

The question is, how badly does he want them, and is he willing to pay big bucks for them? If so, go with the flow, but I doubt it. Although I have been approached by a number of potential customers for this type of work over the years, I have yet to see one go the distance for it.

So before I give you the long side of it, let's look at a couple of alternatives. Since the time when his jukebox was made, several manufacturers, including Abloy, Ace, Ilco and Medeco, have made replacement locks for both, then current, models and for some older models. Chances are that one of these can help you with a proper fitting replacement of equal or better quality at a far better price than any source of Bell locks or keys.

But if your customer is dedicated to keeping it fully authentic, then you may find it profitable to put the considerable time, energy and expense into obtaining them for him.

In major cities, such as New York City, many locksmith shops exist in the same locations they held in the 1940's, which means that some of them still may have equipment and possibly even blanks for locks that are no longer popular. If they were sufficiently large at that time, they may have cut Bell keys, and may be a source.

If you are unable to locate a Bell machine and Bell Blanks, the blanks could be hand fabricated out of brass bar stock by filing them to the correct length, thickness, and shape. It could then be duplicated on either a Bell machine, or with care and diligence, on

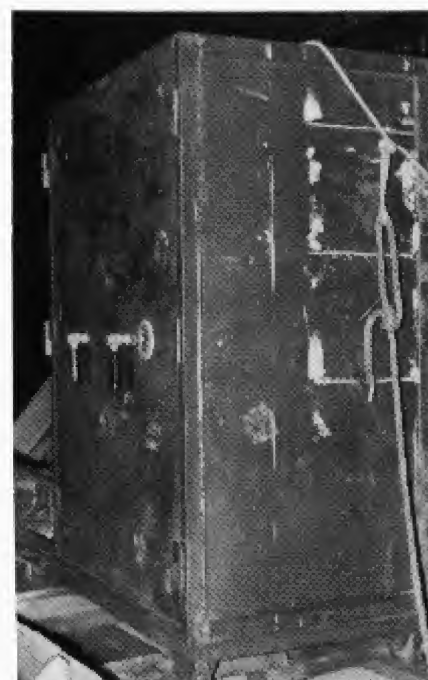
a modern machine such as the Ten machine.

For the replacement camlock, your best bet is to locate a city that is replac-

ing, retiring, or ending its parking meter system. Rutherford and Hoboken, New Jersey, both recently did this, selling or giving away old meters, equipped with Bell locks. This is the only type of source that I am aware of for such equipment.

Altogether, the replacement camlock and a spare key could easily cost your customer several hundred dollars. I have a quarter that says your customer thinks you are crazy when you tell him that. After all, a lock is just a lock, and this is such a small one. Right? 04

Q: Photograph three shows a Mosler safe that I need to open. The specifics are as follows: double-door, 39 3/4" W x 61" H x 27 1/2" D; dial with raised letters "MOSLER" and stamped numbers 9559:34; Mosler Safe Company faintly visible across top of double doors; a label that calls for Fire Class B; Burg T-20 Serial 149340; From center edge of door 6 1/4" to handle, 11" to dial 0. I have been unable to find reference in any published manuals. The drop-in is



3. A double-door Mosler safe submitted for opening procedure.

in "0" area, and as the dial picks up the second and third tumblers it has pull like moving through heavy grease (or mud).

I probably could not manipulate it. I don't see more than five or six of these safes a year. I guess we have to drill, but where? Any suggestion will be appreciated.

J.A. Prince
Tennessee

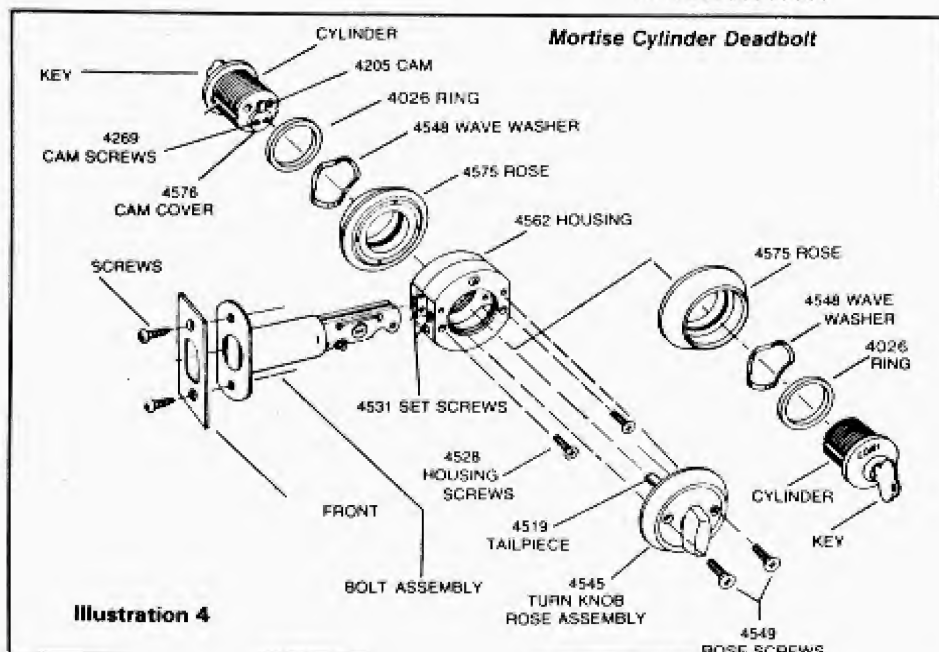
A: The single door version of this safe is featured on page 175 of *The National Locksmith Guide to Safe Opening*. The critical measurement is the 4 1/4" dial to handle measurement. This indicates the likely presence of a Mosler B-6 lock on the inside. Almost none of the Mosler fire safes that came with a B-6 had a relocker. This gives you plenty of options.

You can angle in at 90 to directly scope the gates as they line up under the fence. You can punch the handle cam at 3" LC; 1" up. In the worst scenario you can punch the lockbolt in, as there is no relocker to contend with. Take your pick and let me know how you make out.

04

Q: How do you get the lock shown in illustration four apart? I know that you have to take the cylinder out first, but then do you take the cylinder lock screw out all the way and pull the latch out? I am enclosing a self-addressed stamped envelope.

Lewis Mayo
Michigan



A: The type of lock you show is manufactured by the Lori Corporation and by the Emhart Corporation under both its Corbin and Russwin brand names.

What makes this type of lock most unique is that it may be re-keyed simply by loosening the cylinder set screws and unscrewing the mortise cylinder. The Emhart version therefore allows for simple re-keying among all of its products and keyways, and the Lori version, because of the cylinder cam it uses, allows for even changing to a variety of different manufacturer's keyways.

Because of its versatility, the need to remove the entire mechanism from the door rarely occurs.

Nevertheless, it is a fairly simple task to do so. First, remove the scalp plate on the face of the bolt itself. Next, fully loosen both of the cylinder retaining set screws. Finally, push in on the bolt itself and tilt it so that its innermost portion is raised to clear the slot in the bolt tailpiece.

If by chance the last step does not free the bolt, do not panic. Simply rotate the lock case sub-assembly, or housing as it is sometimes referred to (the large round portion that the cylinders screw into), so that the top is facing towards the door edge, and repeat the final step. This should free the slot in the bolt tailpiece rather quickly, allowing full removal. Above all, however, do not force it! Gentle pressure is all that is required. If it resists you, it needs less or more rotation before attempting to push in and up.

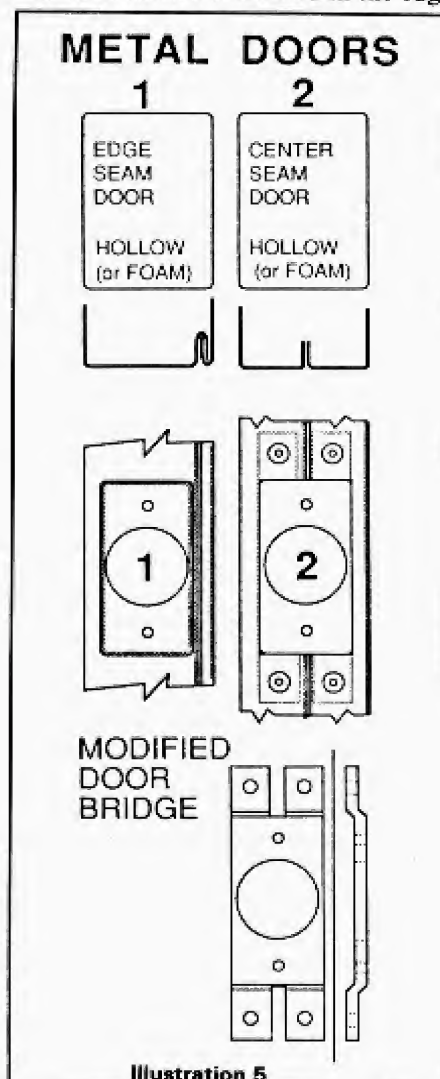
05

Q: Can you give me any suggestions on installing a deadbolt in a steel door with the seam in the middle of the door edge.

I have no trouble drilling the holes, but have trouble getting the deadbolt flush with the door edge. I have a "Squeeze Play" hollow metal door mortising tool, and it works fine on doors with an edge seam, which are more common, but it does not work on these center seam doors.

Cy Rollins
Delaware

A: You sure hit on the sixty four thousand dollar question Cy. The center seam door has been a problem to lock installers since it was conceived. Illustration five shows the edge seam (1) and center seam (2) door profiles. The "Squeeze Play" hollow metal door mortiser will make short work of the edge seam door, requiring only that a 1" hole be drilled in the door edge. By inserting the tool into the door and compressing the metal, a perfect mortise or indentation is created in the edge



of the door to receive the bolt face. The center seam door requires considerably more door preparation. Because of the seam, the door must be cut out at the location of the bolt face, and a door bridge, like the one shown, must be installed in the edge of the door.

Carefully locate and drill the side holes in the door. After locating for the edge hole, carefully scribe the outline for the square mortise to be made in the edge of the door and, using a Dremmel motor tool and abrasive cut-off wheel, cut out the square outline, to accommodate the bolt face you are using. The door bridge is modified as shown by notching both ends with a hacksaw to fit over the seam in the center of the door. Four $\frac{1}{8}$ " holes have been drilled in the bridge tabs, for pop rivets.

Holding the modified door bridge in position over the square hole, mark and center punch the locations for the four mounting holes. Drill $\frac{1}{8}$ " holes for the pop rivets. If the door margin is correct, you can use standard "steel" pop rivets. If the clearance between the door and jamb is not wide enough to allow the standard rivets to be used, countersink the holes and use flat head "steel" rivets. Because of the stress and vibration on the bridge plate, do not use aluminum rivets for this application. Rivet the bridge plate in place, attach the lock bolt with machine screws and complete the installation. The bridge shown will also prevent the door seam from opening or separating where the lock is installed.

This plate is of my own design, and is not commercially available to my knowledge. There are a number of bridge plates available, but none are notched for the center seam door. Installations like this one are not an every day occurrence in our shop, but when there is no other alternative, this method works quite well.

Don't overlook the possibility that a rim mounted lock could better serve to satisfy your customer's need. In some cases, a rim mounted deadbolt is a better choice for securing a center seam door. It will give the same or better security without the problems of weakening the door or difficulties in mounting the lock bolt. 06

Q: Recently a friend asked me to make a key for a 1925 Ford Coupe. The lock is on the steering wheel. It is a Yale lock that pops out when turned. It has a code on the face of the lock that

reads: SS on one side of the keyway and 212 on the other. I cannot find this code in any of the books I have. Can you help with the key and code?

*Ed Lawless
Louisiana*

A: Wow, a '25 Ford Coupe! Brings back memories of my first Ford, a '29 coupe with a rumble seat. Your Ford has an aftermarket wheel, probably wood, made by the Chicago Bearing Co. Yale assigned SS No.'s 1-500 to this company. This is a 4 pin lock using the Yale 10 $\frac{1}{2}$ blank, spacing and depths. The cuts are 3002. That should work. Good luck and thanks for writing and bringing back some pleasant memories. 03

Q: I have a need for some key blanks for a Knight Hawk II auto alarm. Can you please help me with this?

*Ned Scott
Florida*

A: Well, I have researched just about every catalog and advertiser's listings for several years back and find nothing for the "Night Hawk." This could have been produced for an auto parts outlet or for any number of retail chains. You don't mention anything about the type of key you are looking for. Ace type? Single-side? Double-side? Have you looked for any other identifying marks? Could it be that this is an import item?

Sorry that we can't come up with a better answer, but you really haven't given us much to go on. Personally, if I couldn't find a blank on the key board I would change the switch lock and be done with it.

Readers, please, when sending a question to *Shop Talk* give us all of the information you possibly can get together and we will do our best to give a complete answer. If anyone out there can help us, please let us know. 03

Q: I had a call to open a trunk on a 1985 Buick Regal. Not being very well schooled in auto locks I turned the job down. I own a GM car so I decided to get schooled.

In the December 1987 issue of The National Locksmith magazine there was an article on progression. After reading it and using the code I went through the process. It works. Now

here's the catch. I own a 1984 Pontiac 6000 L.E. I removed the glove box lock, and there was no poke hole, and as far as I could see, no way to spring the cylinder loose. Can you help?

Also, I live very near a campground. This is the fourth call for keys locked in the trunk. Could you explain how to open a Chrysler and Ford trunk. I can get in the front of the car with no problem.

*Lawrence Peters
Pennsylvania*

A: There are actually four types of major glove box locks, and they are all the key to getting the trunk open. The fifth type, which is making a new appearance, requires the picking of the lock, and is a modular lock with the handle and latch all contained in a single unit. I will not discuss that here, because it is new, and you probably will not see much of it for a few years. I will briefly discuss the other four types with a few notes.

Standard GM, old or new, circular front: The best way to get a key for the trunk is to pick the lock to the locked position (counterclockwise) and search for the poke hole. It will be there. Sometimes it is covered by a small flashing of plastic. Sometimes the plastic must be raised, but it will be there. Once removed, the last four wafers are exposed and you must progress for the first two cuts. (Another GM lock is the sidebar type on luxury cars. Open and decode, because these locks have all six wafers).

The second major type of lock is the **Ford circular face lock**. This lock in the glove box has a code number on it. Most times you can see the code number which is right next to the latch mechanism. Just twist your head to see it. On older models, it is necessary to remove the outside bezel with a hook pick, so the glove box lock can be removed completely, because the entry code number cannot be seen unless the lock is removed.

The third type of circular glove box lock is that found on the **Chrysler automobile**. It is akin to the GM glove box lock, except that only the three middle cuts of the trunk code are available. Pick the lock, and the poke hole is in the back of the unit, away from your view. Poke the retainer down and remove the lock. Cut the three depths for the 2-3-4 positions.

The simplest way to go from here is to impression the first and fifth cuts, or file a 1 $\frac{1}{2}$ cut in the first position and



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progress the last cut from 1-6. If this does not work, then file a 2½ cut and progress again from 1-6. You will eventually get a key that works.

A fourth type of glove box lock can be found on both **GM and Ford** cars. This is the **squeeze type lock**. It is rectangular with two squeeze buttons. The entire lock does not have to be removed. Just take a pair of open function truarc pliers at the back of the lock core, pry apart the two retaining hooks, and the cylinder (core) will fall out. (Hopefully not under the front seat out of reach).

For GM cars, you will again have the last four wafer numbers of the code. All you have to do is to progress the first cut. The first wafer in the Ford lock, as well as the first wafer in the GM lock are not code numbers, but a type of retainer wafer. Do not be confused.

As for Ford and Chrysler cars, sharpen your picking skills. These lock can either be picked or impressed very easily without the use of the glove box lock at all. 07



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Technitips

Continued from page 16

key extractor or a wire hook type broken key extractor. Pull gently on the key extractor as you push the key alarm actuator down with a second pick. A hook type key extractor, pushed under the blade of the key will sometimes push the buzzer actuator out of the cuts of the key and pull the key at the same time.

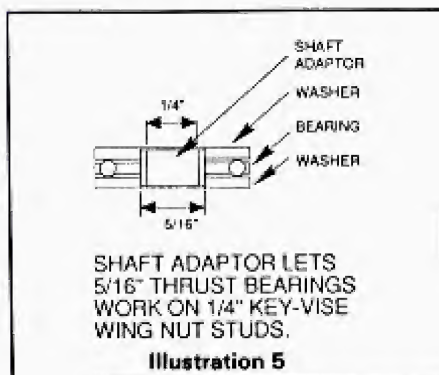
A locksmith's job should be 99% finesse and 1% force. By knowing why the key is locked into the ignition and using this knowledge to release it, you won't need to force it or run the risk of complicating the job by breaking the key off in the ignition.

Give this Technitip a try. It is much easier than trying to muscle the key out.

Millard Barr
Pennsylvania

This Technitip is a method of improving the grip of the jaws of your key machine. By adding a set of thrust bearings to the key vises, the vises will grip the keys with less torque on the wing nuts.

The small thrust bearings, available from HPC with the appropriate size hardened steel washers, are designed to be used on a 5/16" wing nut stud. If you are using the bearings with a key machine with 1/4" studs, make an adaptor for the bearings from a piece of 1/4" x 5/16" bronze bushing material. Cut the bushing slightly shorter than the height of the bearing and washers, as shown in illustration five.



The adaptor allows the bearing and washers to pilot on the smaller shaft. If the bearings are used on the smaller shaft without an adaptor, the bearing will be damaged, and the hardened washers will break.

Bruce Polzar
Wisconsin



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When rekeying master keyed cylinders, there is always a problem with removing all the master wafers. If you copy the master key over the set key for the lock, you will have a combination key that will contain all the deepest cuts of both the master and set keys. Use this key to remove the plug, and it will bring out all the master wafers with it.

This tip is especially helpful when working with Almont rekeyable padlocks, as reloading the tip pins, even with the top pin loading tool, can use up valuable time.

Gregory Krol
Illinois

Key n' Keyless Lock

Continued from page 28

Both the knoblock and deadbolt unit have built-in indicators that show if the batteries are low. The knoblock will show the letter "L" (for low battery) in the opening window instead of the "U." The lock will work at least 100 times before only the key will work. They suggest that the batteries be changed immediately when the "L" shows in the window, or at least once a year. The knob used four "AAA" type batteries.

The deadbolt unit has an audible signal that the one Alkaline 9-volt battery (only use Alkaline batteries in the deadbolt) is getting too low to function properly. The signal is activated when you are leaving the premises, and you press the inside exit button on top of the deadbolt unit. When the unit is working properly, you will hear two beeps, which let you know that the unit is OK. If, when you press the exit button to activate the bezel around the deadbolt lock, you hear eight beeps, this means that the lock battery is low.

Remember, frequency of use, shelf life of the batteries that you use, and even ambient temperature all have an effect on battery life. Be sure you explain to your customer about this, and how to recognize low battery signals, readable and audible.

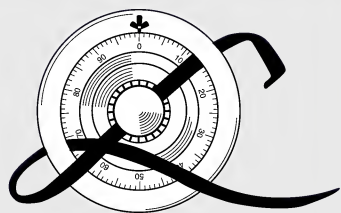
Replacement of the batteries is easy, and no special tools or tricks are needed. The battery covers on both the deadbolt and the key-in-knob lock are easily removed and the batteries easily seen and replaced. No special knowledge is needed to accomplish this. You might try selling a yearly service contract to replace the batteries on multiple installations at the same location.

Troubleshooting and Maintenance. At the end of the 30 page manual, is

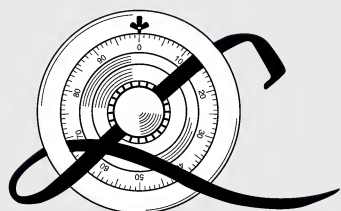


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Appendix "A" which is the troubleshooting and maintenance worksheet. It discusses what can happen if: you set the master code incorrectly; if the master code does not work; if either the temporary code and/or the master code is forgotten; and just about anything else that can possibly go wrong with the Key 'N' Keyless lock. If the question is not answered on the page, it tells you where in the manual to go for a long discussion and explicit directions on how to fix the apparent problem.

If further assistance is needed, there is also a telephone number that can be called during business hours for both code setting and operating problems, and handling (both electronic and mechanical) difficulties and predicaments. As a final help, an index is also included to make specific solutions easier to look up.

In all, I was quite impressed with these Schlage locks. They demonstrate high tech and usability all rolled into one unit. ■

Beretta/Corsica

Continued from page 43

Now the buzzer assembly is right out in the open. Remove it and then remove the screw. (See photograph 22.) The lock can now be pulled out. (See photograph 23.) Again, do your thing,



22. Removing the screw which holds the lock in.



23. Lock removed from column.

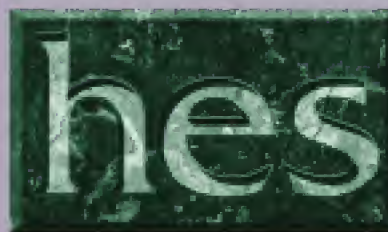
make the key, repair the lock, or replace it. Reverse the order and rebuild the column. You're done!

I want to acknowledge Jay (Chip) Taylor of Sacramento, CA for his help in putting together this article. Thanks Chip! ■



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